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The
(Botanic Garden;)
consisting of
Figur'd Representations
OF HARDY
ORNAMENTAL FLOWERING
PLANTS,
CULTIVATED IN GREAT BRITAIN,
WITH
Their Classification, History, Culture,
AND
OTHER INTERESTING INFORMATION.

— BY —
B. MAUND, F.L.S.

Vol. I.

LONDON

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THE
BOTANIC GARDEN;

CONSISTING OF
HIGHLY FINISHED REPRESENTATIONS

OF HARDY
ORNAMENTAL FLOWERING PLANTS,

CULTIVATED
IN GREAT BRITAIN;

WITH

THEIR NAMES, CLASSES, ORDERS, HISTORY, QUALITIES, CULTURE,
AND PHYSIOLOGICAL OBSERVATIONS.

BY

B. MAUND, F.L.S.

VOL. III.

“Not a tree,
A plant, a leaf, a blossom, but contains
A folio volume. We may read and read,
And read again, and still find something new,
Something to please, and something to instruct.”

HURDIS.

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1829—30.

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Erodium hymenoides.

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Hypericum Jalmianum.



Parnassia palustris.

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55

ERO'DIUM HYMENO'DES.

TERNATE-LEAVED HERON'S BILL.

<i>Class.</i>				<i>Order.</i>			
MONADELPHIA.				PENTANDRIA.			
<i>Natural Order.</i>							
GERANIACEÆ.							
Native of Barbary.	Height. 9 inches.	Flowers in May, Oct.	Duration. Perennial.	Introduced in 1796.			

No. 193.

The term Erodium is derived from the Greek **ERODIOS**, α' heron, in allusion to the resemblance the fruit of this plant bears to the head and bill of that bird. Hymenodes from the Greek **HYMNE**, a membrane, and **EIDOS** a form or likeness, in allusion to its rather conspicuous membranaceous stipules.

This plant belongs to one of the three divisions formerly included under the genus **Geranium**, which genus, though in itself well defined, was increased to so inconvenient an extent that it became expedient to divide it. L'Heritier, a French botanist, effected this in a convenient manner, by arranging the original family under the heads **Geranium**, **Pelargonium**, and **Erodium**, and his method is now fully established. **Geranium** he made to contain all those plants having the ten stamens perfect or fertile. **Pelargonium** has only seven fertile stamens; and **Erodium** possesses but five that are perfect. The remainder in each of the latter divisions, are always abortive. Thus a natural family has been divided to render a convenience to systematic arrangement.

This tribe of plants has, indeed, been augmented to a most unprecedented extent. The **Pelargoniums**

alone, which are known as the Geraniums of the green-house, are at the present time upwards of four hundred in number. The greater portion of the distinct species have been introduced from the Cape of Good Hope, but a multitude of others have been raised from seeds in England, chiefly hybrids, many of which will, doubtless, transmit a name alone to future generations.

When the original family of Geranium was divided, it was well conceived that the same prominent feature should be represented in the names; therefore, as *Geranium* was derived from the Greek **GERANOS**, a Crane; the Greek **PELARGOS**, a Stork, gave *Pelargonium*; and from **ERODIOS**, a Heron, was deduced *Erodium*. Hence a well defined natural family of vegetables with a prominent character in its ger-men and pointed style, are ingeniously designated by a natural family of animals, the Crane, the Stork, and the Heron, each possessing the peculiar feature, a long bill, which marks the resemblance between the plant and the bird.

The *Erodium hymenodes* is an herbaceous plant, deserving a place in every collection; for though we have registered its blossoming season but six months, it is difficult to say when it is not in flower.

When planted in the borders, a light soil and dry situation should be chosen for this plant, in a warm aspect. It may be raised from seeds; or more readily from cuttings, taken from May to August; which should be struck in a cool part of the border, under a hand-glass, and afterwards be transplanted into pots, for protection in a cold frame, during the severe frosts of the first winter.

HYPE'RICUM KALMIA'NUM.

KALMIA-LEAVED ST. JOHN'S-WORT.

Class.	Order.
POLYADELPHIA.	POLYANDRIA.
Natural Order.	
HYPERICINEÆ.	

Native of N.America.	Height. 18 inches.	Flowers in June, July.	Duration. Perennial.	Cultivated in 1759.
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No. 194.

The Greek term HYPERICON having been established about the time of the Christian era, it is not remarkable if the exact meaning which was first attached to it, should not, in the present day, be clearly understood. It is admitted to have originated in the Greek word HYPER, above; and EIKON, an image, or spectre; and as some say from having been used to decorate idols; whilst others imagine, from its supposed power over evil spirits.

The Hypericum Kalmianum may be recommended as a hardy gay-flowering little shrub, well suited for planting with the various species of Daphne, Ledum, Kalmia, Andromeda, and others of like size and habits, in the foreground of the shrubbery. Or, it may have a place in the mixed flower garden, amongst herbaceous plants; but the luxuriant sorts should not be permitted to overgrow it.

It succeeds extremely well in a light loamy soil; and will grow in peat, but less freely. As the old wood, from the root upwards, produces numerous young shoots, these may be planted under a hand-glass for increase. Or the lower branches may be conveniently laid, and they will make root,

Miller's Dict.

PARNAS'SIA PALUS'TRIS.

GRASS OF PARNASSUS.

<i>Class.</i>	<i>Order.</i>
PENTANDRIA.	TETRAGYNIA.
<i>Natural Order.</i>	
CAPPARIDES.	

Native of Britain.	Height. 8 inches.	Flowers in July, Aug.	Duration. Perennial.	Inhabits Marshes.
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No. 195.

This plant, though it has no resemblance to any of the Grasses, is confidently believed to be what the ancient Grecian authors called the Grass of Parnassus ; and its secondary appellation is, doubtless, from the growth of the plant on Mount Parnassus, or from some other connexion it held with that classic ground. Hence the term Parnassia has been given to it by modern botanists. Palustris, a Latin term, descriptive of its growth in marshy places, which is peculiarly its habit, and a principal reason why so few persons succeed in its cultivation.

It is a very interesting little native plant, and has attracted great attention by its elaborate and beautiful nectaries, which are crowned with a semicircular row of little pellucid globules, generally thirteen in number on each scale. And it is also remarkable from the singular habit of its parts of fructification, which should not pass unnoticed. When the flower begins to open, the anthers are discovered close to the sides of the germen, but on the first morning of the expansion of its petals, one of the stamens will move from its apparent repose, and becoming elongated, will present its anther over the stigma or

summit of the incipient seed vessel. In this situation its farina will be discharged, and it will then recede from the centre of the flower and fall back nearly to the petals. Thus, one stamen having performed its destined office, a second will be observed to advance in like manner ; as also will each of the others in succession, till the farina of all has been discharged, and the fructification of the seed thereby completed.

This singular locomotive operation of the stamens will occupy about two days each, more or less, according to the state of the weather ; taking somewhat more than a week, for the operation of the whole flower. This time will vary in proportion to the stimulus yielded to its powers of vegetation by the less or greater supply of heat and moisture.

If the plant be placed in a window, or other situation where the light or sun's rays are but partially received, the first stamen will be observed to rise on that side of the flower presented to the light ; and in this case the flowers will very sensibly turn with the apparent course of the sun.

Some other plants, as *Saxifraga*, and the common Rue, have the same peculiarity in the separate action of their stamens ; but we know of no one that possesses a more beautifully organized appendage than is presented to us in the little nectaries of *Parnassia palustris*. These supernumerary organs will be further considered at a future time.

This plant is a native of marshy places in many parts of England ; and is most successfully cultivated in a pot of sandy peat and loam, which should be set in a pan, containing, at all times, a little water,

MALCO'MIA MARIT'IMA.

MEDITERRANEAN STOCK.

<i>Class.</i>	<i>Order.</i>
TETRADYNAMIA.	SILIQUOSA.
<i>Natural Order.</i>	
CRUCIFERÆ.	

Native of S. Europe.	Height. 8 inches.	Flowers in May, June.	Duration. Annual.	Introduced in 1773.
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No. 196.

The term *Malcomia*, instituted in honour of William Malcolm, of the Kensington Nursery, near London, was first used by Brown, in the *Hortus Kewensis*, to distinguish a genus of plants which he separated from *Chieranthus* and *Hesperis*. Our present subject was previously the *Chieranthus maritima*; and commonly known as the *Virginian Stock*; which latter name Curtis, thirty years ago, pronounced as erroneous, from the plant having no connexion with Virginia, being indigenous to the coast of the Mediterranean. *Maritima*, from the Latin, in allusion to its usual maritime situation, or growth near the sea.

Though this little annual may be common, still every one who regards a plant for its own attractions will admire it. And it possesses the valuable qualification not only of easy culture, but also of yielding its flowers to ornament the borders at almost any time required. If sown in autumn it will flower very early in spring. A successional crop may be planted in February; and by monthly sowings till Midsummer, a display of its changeable little flowers may be continued all the summer.





Rosa Banksiae.



Anemone pulsatilla.



Clarkia pulchella



Campanula lactiflora

RO'SA BANK'SIAE *lutea.*

LADY BANKS'S YELLOW ROSE.

<i>Class.</i>	<i>Order.</i>
ICOSANDRIA.	POLYGYNIA.
<i>Natural Order.</i>	<i>ROSACEÆ.</i>

Native of China.	Height. 6 to 20 feet.	Flowers in June, July.	Duration. Perennial.	Introduced in 1824.
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No. 197.

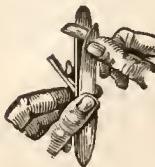
The derivation of this generic term is given at length under No. 177. Banksiae, in honour of the Lady of the late Sir Joseph Banks.

This delightful specimen of Chinese beauty may be expected to originate a new feature in the external embellishments of the English villa. Its freedom of growth and flowering make it highly desirable. A single bud of it was put into the stem of the common China Rose in May last, and in September it had made a well-branched shoot, seven feet nine inches long. The China Rose was then detached from the wall against which it was trained, extended on the border, and the various branches that had grown from the bud were separately laid in small pots of soil, in the manner of carnations. In nine weeks afterwards they were separated from the parent plant, and turned into an open bed with each a hand-glass over it, where they now, (January) remain, strong healthy plants, fifty-six in number.

The art that produces such advantages must be valuable, we, therefore, concisely state the manual operation of Budding; and precautionary advice will appear at a future opportunity.



Make choice of a bud; insert the knife from half to three quarters of an inch below it, and take one third of the substance of the branch with the bud: turn out the knife at the same distance above it, separating a piece similar to the representation.



Take the piece thus cut off, and separate the wood from the bark, nearly to the root of the bud, in the direction represented; afterwards, commence at the other end of the piece, and in like manner carefully remove the woody part entirely.



The bark thus detached may now be called the shield; which should have the root of the bud full within it; but any little fibrous shive of the wood attached to the base of the bud, as represented, would prevent a ready union of the bud and stock.



The whole being thus perfect, make a cross cut, as in the annexed engraving, about half way round the branch that is to receive the bud; also another cut longitudinally, an inch and a half long; and with the thin ivory point of the budding knife raise the bark, to admit the shield beneath it.



Then quickly insert the shield, leaving a small portion of the top of it above the cross cut, as shown opposite, which part must be cut off exactly over the cross cut, as indicated by the spotted line in the engraving, so that the end of the shield will be made to meet the bark of the branch.



This last operation should be exact, because the union of the stem bark with the shield first takes place at the cross cut. The whole should now be closely tied, as represented, with a little soft bass or matting that has been previously soaked in water, and the operation will be complete.

ANEMO'NE PULSATIL'LA.

PASQUE FLOWER.

Class.		Order.
POLYANDRIA.		POLYGYNIA.
Natural Order.		
RANUNCULACEÆ.		

Native of Britain.	Height. 8 inches.	Flowers in April, May.	Duration. Perennial.	Inhabits dry pastures
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No. 198.

The term Anemone, from the Greek ANEMOS, wind; and Pulsatilla, from the Latin pulsare, to beat, seem to have been suggested by the same circumstances ; or the one term, probably, gave rise to the other ; as Pulsatilla, which was, originally, the generic name of this plant, is expressive of the flower or seed being beaten about by the wind. The French term, pasque, has been applied to this plant from its season of flowering.

It is a pretty border plant, which should have a place in every collection ; and though, in moist situations, we have generally observed it to be rather short lived, still as it can be readily propagated from seeds, no deficiency of the plant need occur when once obtained.

The whole of this plant is extremely acrid, and Helwing states that it raises a blister when applied to the skin. The dried plant has been used as an escharotic, and the distilled water from it is emetic.

Sandy loam, a dry situation, and southerly aspect, suit the Pasque Flower. Its seeds should be sown in pots as soon as ripe, and have a little protection during the severity of the winter.



CLARK'IA PULCHEL'LA.

FAIR-FLOWERING CLARKIA.

Class.
OCTANDRIA.

Order.
MONOGYNIA.

Natural Order.
ONAGRARIE.

Native of N. America	Height. 18 inches.	Flowers in July, Sep.	Duration. Annual.	Introduced in 1825.
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No. 199.

Clarkia is named in honour of Captain Clarke, who travelled in North America with Capt. Lewis. Pulchella, from the Latin, pretty.

This is, doubtless, one of the most singular and beautiful hardy annuals that has been introduced into this country for many years past. The shape of the flower is quite a parterre novelty,—a peculiar heraldic cross and crosselets, not thought of by Colombiere himself, though he enumerated upwards of seventy heraldic figures of this denomination. The colour of the flowers, in different plants, is variable from a fine purple through all the shades of pink, nearly to white; and their prominent pistilum nicely aids in giving the whole an elegant lightness.

It is due to the Horticultural Society to state that if such establishment had not existed, our friends may never have known the Clarkia pulchella; nor would they have been in possession of very many other novelties that now afford them pleasure.

Seed of this plant, like that of other hardy annuals, may be sown in the mingled flower border; but it is better to set apart a seed bed, and remove the young plants where they are desired to flower.

Bot. Reg.



CAMPAN'ULA LACTIFLO'R'A.

MILK-COLOURED BELL-FLOWER.

Class.

PENTANDRIA.

Order.

MONOGYNIA.

Natural Order.

CAMPANULACEÆ.

Native of Siberia.	Height. 3 feet.	Flowers in July, Sep.	Duration. Perennial.	Introduced in 1814.
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No. 200.

The Latin word Campanula, a bell, has very appropriately given a name to this extensive family of plants. Lactiflora, or Lacticolor, from the Latin, expressive of its milky coloured flowers.

This is a handsome and free flowering Campanula; more slender and elegant in growth than most others of the same genus. It requires no peculiar attention, and the roots will admit of separation, for increase, at the usual season.

The medicinal virtues of Campanula are rarely noticed by modern writers; one short extract, however, from the *Theatrum Botanicum* of John Parkinson, a no less personage than King's Herbalist to Charles I, may be admissible: with fashion's kind patronage it may banish from the toilets of our fair readers all traces of the Lotions and the Kalydors of the Gowlands and Rowlands, and other Cosmeticarians of present newspaper celebrity. "The rootes beaten small, and mixed with some meale of Lupines, clenseth the skinne from spots, markes, or other discolourings. The distilled water of the whole plants, rootes and all, performeth the same, and maketh the face very splendent and cleare."

Bot. Reg. 241.





Oenothera Lindleyana.

51



Gilia capitata.

52



Primula auricula.

53



Tritoma media.

Flower 54
Plant 55

ŒNOTHE'RA LINDLEYA'NA.

LINDLEY'S TREE PRIMROSE.

Class.
OCTANDRIA.

Order.
MONOGYNIA.

Natural Order.
ONAGRARIÆ.

Native of N.America.	Height. 2 feet.	Flowers in July, Sep.	Duration. Annual.	Introduced in 1826.
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No. 201.

The term **Œno**thera is stated by ancient writers to be derived from the Greek **oINOS**, wine; and **THERA**, pursuing or catching, from the roots acquiring a vinous perfume by being dried. The Greek word **THERA**, signifies also a wild beast; and **Œno**thera may have originated from the notion of **Cret**evas, a Greek physician, who says that the herb then bearing this name being put into wine, and wild beasts sprinkled therewith, became tame and tractable

This species is named after Mr. Lindley, the present professor of botany at the London University, an appointment to which his experience and ability render him highly suitable.

It is a very pretty **Œno**thera, which will, assuredly, soon become a favourite annual. Its conspicuous pink mark on each petal is rather remarkable, though not the only instance amongst the **Œno**theras of such peculiarity; this, however, like vegetable colours in general, is not a permanent character, for plants of it frequently occur whose flowers have no trace of such mark.

The common colours also of the flower vary considerably in different soils, becoming more or less

pink or purple, probably in proportion to the supply of acids or alkalies which the soil affords to the plant. Or, carrying our ideas somewhat farther, we should say, in proportion to the oxygen, hydrogen, and carbon, which, by decomposition, the roots are enabled to collect from the substances with which they happen to come in contact. Still we would not mislead by favouring an idea that vegetables are wholly dependent on their roots for a supply of nutriment to form their solid parts, for experiments have clearly shown that they collect a portion, and some authors have been bold enough to assert that they collect all, their food from the atmosphere, whatever is imbibed by the roots acting merely, if we may be allowed the expression, as a stimulus to their appetites.

Seeds which have been sown amongst pure sand, and even amongst pieces of metal, as leaden shot, &c., on being regularly supplied with distilled water, have been found to vegetate and grow to maturity, ultimately yielding all the products of acids, alkalies, metals, earths, &c., which are common to those grown in soil. Hence it is certain that all these substances could not have been taken up by the roots, on account of the water being freed, by distillation, from extraneous matter.

Water is in general indispensable to vegetables, the decomposition of which may go far towards forming their solids; and every horticulturist knows that an evident modification of the effects of their atmospheric nutriment occurs from the exhibition of certain substances to their roots. No peculiarity of culture is requisite.

GIL'IA CAPITA'TA.

CLUSTER-FLOWERED GILIA.

<i>Class.</i>	<i>Order.</i>
PENTANDRIA.	MONOGYNIA.
<i>Natural Order.</i>	
POLEMONEACEÆ.	

Native of N. America.	Height. $2\frac{1}{2}$ feet.	Flowers in July, Oct.	Duration. Annual.	Introduced in 1826.
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No. 202.

The term *Gilia*, used to distinguish this species of plant, was invented by Cavanelles in honour of a Spanish botanist named Philippa Salvador Gilio, who published a botanical work at Rome, and also wrote a history of some of the Spanish territories of America. *Capitata*, from the Latin, headed ; in allusion to its prominent heads of blossoms.

The seeds of this newly introduced annual were received by the Horticultural Society, from Mr. Douglas, in the spring of 1826; at which time he was pursuing his botanical researches through North America, where this flower prevails in cultivated fields. It has much of the character of *Scabiosa*, and though not of very gay or splendid aspect, still for its delicate foliage, and abundance of blossom, it is deserving of a place in the mingled flower border. The seeds of the *Œnothera Lindleyana* also, our preceding subject, were, we believe, transmitted from Mr. Douglas at the same time.

It grows and blossoms in pots or in the full ground, but more strong and full of flower in the latter. It may be sown in the early part of April, and will only require the usual management of annuals.

PRIM'ULA AURI'CULA.

AURICULA.

Bearless's Superb.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
PRIMULACEÆ.

Native of	Height.	Flowers in	Duration.	Cultivated
Switzerland	6 inches.	April, May.	Perennial.	in 1597.

No. 203.

Primula, from the Latin *primus*, first, alludes to some of its species being the earliest flowers produced by spring. The name *Auricula*, from the Latin, signifying an ear, is a name of long standing. Three hundred years ago these plants were called *Auricula ursi*, or Bears' ears, from the formation of their leaves; hence the term *Auricula* has still prevailed both in systematic, and in common language.

The present green-edged variety is known as Bearless's superb. It is not of very late introduction, but considered, by florists, a desirable flower, and would be still more so but that its tendency to produce offsets, frequently weakens the plant, as well as renders it more easy to be obtained.

As all our readers may not be skilled in the technicalities of the *Auricula* fancy, it may not be amiss to inform them that florists divide the numerous varieties into five distinct classes, viz. green-edged; grey-edged; white-edged; selfs, or self-coloured; and alpines, or shaded selfs.

In the estimation of florists the qualifications required in the *Auricula* and others of their favourites, are rather numerous; and although it must be

confessed that a little acquaintance with the technicalities, as specifically applied to them, is necessary to produce a taste for the peculiar distinctions or niceties required in them, still we are free to admit that these indispensable requisites are not founded on mere caprice, but on elegance of symmetry and beauty of colour; and it is partly on the perfection of these, and partly on the novelty of their combination, which florists place so high a value. Emulation and rivalry effect all the rest.

The prime qualifications of the Auricula, as stated by Bradley, above a hundred years ago, are the following. We consider his interpretation more explicit than the prolixities of modern florists. "First, that the flower stem be strong and substantial: secondly, the foot-stalks of the flowers must be short, and capable of supporting the blossoms upright: thirdly, that the pipe or neck of each flower be short: fourthly, that the flowers be large, and of a regular form: fifthly, their colours should be bright, and well mixed: sixthly, that the eye be large, round, and of a good white: seventhly, that the flowers spread themselves flat, and be no ways inclinable to cup: and lastly, that there be a good truss of flowers equally spread upon the stalk." To these we may add, that the anthers should close over the style, and well fill the mouth of the tube. The anthers are commonly called thrum, and the foliage or leaves termed grass; these really are vulgarisms that we hope respectable florists will banish from their nomenclature. The votaries of Flora will never impede the "march of intellect."

The culture of the Auricula in a future number.

Hort. Kew. 2, v. 1, 309.

TRITOMA ME'DIA.

LESSER TRITOMA.

Class.	Order.
HEXANDRIA.	MONOGYNIA.

Natural Order.	HEMEROCALLIDÆ.
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Native of	Height.	Flowers in	Duration.	Introduced
C. G. Hope.	18 inches.	Dec. to Apr.	Perennial.	in 1789.

No. 204.

The above generic appellation, Tritoma, is deduced from the Greek **TREIS**, three ; and **TEMNO**, to cut ; in allusion to its three edged-leaves. The Latin term, media, is given to this species from its medium size ; the Tritoma uvaria being larger, and the Tritoma pumila smaller, than the one before us.

This is an elegant appendage to a collection of herbaceous plants, bearing a spike of beautiful flowers, which continue in perfection a considerable time ; and possessing foliage that is never intrusive.

Though it will bear most of our mild winters, it is not safe to leave it always exposed during frosts ; for should they happen to prove severe, plants that have flowered will assuredly be destroyed, though young ones will generally withstand its effects. If it be planted in a pot and sheltered in a cold frame during winter, it may, in spring, be placed with the pot in the ground, and with convenience removed again in October. By this method, in light rich soil, it will blossom freely ; and not only in the season previously noticed, but also, not unfrequently in the autumnal months. A warm situation and deep soil are most suitable to this plant.





Verbena Aubletia.

32



Bisentella hispida.

33



Nolana paradoxa

34



Petunia nyctagineiflora

35

VERBE'NA AUBLE'TIA.

ROSE-FLOWERED VERVAIN.

<i>Class.</i>	<i>Order.</i>
DIDYNAMIA.	ANGIOSPERMIA.

<i>Natural Order.</i>	
VERBENACEÆ.	

Native of N. America,	Height. 15 inches.	Flowers in July, Oct.	Duration. Perennial.	Introduced in 1774.
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No. 205.

Verbena is a term of which it is difficult to determine the origin. The Romans employed it to distinguish an aromatic evergreen shrub, which was used in their religious ceremonies; consequently held sacred, and bearing the name Herba sacra, in common with some others so employed. Some have considered the Celtic Ferfaen, to have produced the English Vervain. Aubletia, from Aublet, the name of the author of a History of Plants in Guiana.

The Verbena Aubletia, is a species which has occupied a place in the English garden more than half a century; but our present variety of it has been lately introduced from America, and to the herbaceous border is a great acquisition.

Many plants which are perennial in their native soil, in more northernly regions can only be cultivated as annuals, unless an artificial climate be afforded them. This is most probably the case with the Verbena Aubletia. With us the seeds should be sown in pots of rich light earth in March, and be forwarded in a hotbed till the beginning of May, when the plants should be transplanted into the borders to flower in autumn.

BISCUTEL'LA HIS'PIDA.

HISPID BISCUTELLA.

Class.

TETRADYNAZIA.

Order.

SILICULOSA.

Natural Order.

CRUCIFERÆ.

Native of S. Europe.	Height. 2 feet.	Flowers in July, Aug.	Duration. Annual.	Introduced in 1822.
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No. 206.

The origin of the word Biscutella, is found in the Latin *bis*, twice; and *scutulum*, a little shield; in allusion to the double shield represented by its silicle or seed vessel. *Hispida*, rough, or bristly. The shape of the seed vessel has also procured this genus the name of Buckler-Mustard, but the term is rarely heard.

It is not so much under an impression of the beauty, or any other attractive property of this plant, that we are induced to present it to our readers; but rather, as the seeds of several species of Biscutella are frequently offered amongst new annuals, that they may be made acquainted with the general character of the genus. The greater part of the Biscutellas are hardy annuals, natives of France, Spain, and Italy, where some of them hold the same place in agriculture, as our *Sinapis arvensis*, or Charlock, does in Britain, and for which they may readily be mistaken by the common observer.

It is easily propagated by sowing seeds in a light soil, in the spring. Or if sown in autumn, the young plants will live through the winter and produce earlier flowers.

NOLA'NA PARADOX'A.

VIOLET-FLOWERED NOLANA.

<i>Class.</i>	<i>Order.</i>
PENTANDRIA.	MONOGYNIA.
<i>Natural Order.</i>	
BORAGINÆ.	

Native of	Height.	Flowers in	Duration.	Introduced
Chili.	6 inches.	July, Oct.	Annual.	in 1822.

No. 207.

Nolana is a term derived from the Latin Nola, a little bell; and was first used by Linneus, to distinguish the Nolana prostrata, to which plant, from the shape of its calyx and corolla, it was very appropriately applied. The trivial name paradoxa was given by Mr. Lindley, whose character of this plant we do not possess, but believe the term was employed in allusion to some anomalous formation of the parts of fructification, which subsequent examinations have shown to be inconstant.

This is a trailer of considerable beauty, and though native of a warmer climate, has exhibited with us habits of hardihood. Seeds were sown in a small pot in May last, and put within the frame of a hot-bed. Soon after the plants were up, they were removed to a cool part of the garden, and there remained in the pot, with occasional waterings, during the summer. Late in autumn they withstood the effects of a rather sharp frost, and were afterwards placed in a cold frame, and are now (March) about three inches high. These, if turned into the border, in April, will, doubtless, make strong early-flowering plants.

Bot. Mag. 2604.

The sea-like Plata,—to whose dread expanse,
Continuous depth, and wondrous length of course,
Our floods are rills. With unabated force,
In silent dignity they sweep along,
And traverse realms unknown, and blooming wilds,
And fruitful deserts, worlds of solitude,
Where the sun shines, and seasons teem in vain,
Unseen and unenjoy'd." THOMPSON.

Cultivated as a hardy annual, the Petunia nyctagineflora is a valuable acquisition to the flower garden, and as a perennial also we are sure that very many of our readers will highly prize it. The abundance of flowers which it produces in the second and third year of its growth over the entire surface of a plant six or eight feet high, when trained to a wall, will amply repay the trouble required in the protection of this luxuriant herbaceous American.

Seeds may be sown in the open ground in April; or more advantageously on a hotbed a month earlier, as the plants will come into flower proportionably sooner. If trained against a wall they will attain from two to three feet in height the first summer. A good covering of stable litter, or straw should be applied over the roots during winter, and a double matting over the plant in frosty weather will preserve it. We have exposed it in a pot to rather severe frosts, and though the leaves were destroyed the stems were but little injured.

If a plant or two be kept in pots, and preserved during winter in the house, cuttings of it may be struck on a hotbed, in the spring, which will produce a gay display of flowers much earlier than if raised from seeds.



Trollius Europaeus.



Aconitum Napellus.



Vaccinium myrtillus.



Astrantia major.

TROL/LIUS EUROPÆ/US.

EUROPEAN GLOBE-FLOWER.

<i>Class.</i>	<i>Order.</i>
POLYANDRIA.	POLYGYNIA.
<i>Natural Order.</i>	
RANUNCULACEÆ.	

Native of Britain.	Height. $2\frac{1}{2}$ feet.	Flowers in May, June.	Duration. Perennial.	Inhabits Groves.
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No. 209.

The word *Trollius* is said to be deduced from an obsolete German word *trol*, or *trolen*, signifying something globular. Our English name *Globe-flower*, and the French *boule d'or*, have reference to the same idea. The Scotch call these flowers *Lucken-gowans*, or *Cabbage Daisies*; and the same name, or a corruption of it, generally prevails in the North of England.

The globular blossoms of this plant form a very prominent characteristic, and appear to have been alluded to as a distinctive mark by the old botanists. Gerarde observes, that it has very fair yellow flowers, consisting of a few leaves, folded or rolled up together like a round ball or globe, whereupon it was called *Ranunculus globosus*, or *Globe Crowfoot*.

Though it grows most luxuriantly in a rather shady and cool situation, still it will succeed in any common soil, and in any aspect. It increases tolerably fast, and the roots may be divided in spring or autumn, when required; but it is desirable that they should not be too frequently parted, as they flower best after having remained two or three years undisturbed.

ACONITUM NAPEL' LUS.

MONK'S-HOOD.

Class.	Order.
POLYANDRIA.	TRIGYNIA

Natural Order.
RANUNCULACEÆ.

Native of Europe.	Height. 4 feet.	Flowers in July, Aug.	Duration. Perennial.	Cultivated in 1596.
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No. 210.

The word **Aconitum** is now of uncertain derivation, it having originated with the Greeks at a very early period of their history. The Greek word **ACONITOS**, signifying without dust, is its usually received parent ; but this preference rests principally on the authority of Ovid, in his *Metamorphoses*, who says it grows on rocks devoid of soil.

Theophrastus believed that it took its name from Aconæ, a town in Bithynia, near which it grew in abundance. Napellus, the diminutive of *Napus* ; from the plant which first received this appellation having a bulb like *Napus*. The origin of Monk's-hood is evident, from the shape of its flowers.

Pliny the Younger has transmitted to us some curious ideas respecting the **Aconitum** of the Greeks ; but there is no proof that any plant known by modern botanists under such appellation, is that to which such potent effects are attributed. The knowledge of early ages was, unfortunately, so much mixed up with fable and wonder, that it is now difficult to appreciate correctly the value of their assertions, or justly to estimate what portion of merit may be due to many of their discoveries.

Respecting the Aconite, Pliny says this plant alone is sufficient to induce endless admiration of the ancients, seeing how they searched out the secrets of nature, and detected such baneful effects in some of her productions. They found that there was no poison in the world so quick in its operation as this. Even if any creature of the female sex be but touched with it, death was inevitable. They pronounced it an antidote to the poison of the scorpion ; and if the animal itself be but touched with Aconite, he would shortly become pale, benumbed, and powerless ; nevertheless, they further state, if he can but touch the White Hellebore, the effect of the deadly Aconite is instantly dispelled, and the scorpion will recover. These form but a small portion of its effects.

We now mark their antidotes. One Greek physician states, that the plant Eryngion hoiled in the broth of a goose, is an antidote to the poison of Aconite. Again, another says the broth of an old cock is a specific against it. These statements form part of that wisdom of the primitive world which Pliny so much venerates.

Our present *Aconitum napellus* certainly is a virulent poison, and as such should be treated with caution. The effluvia from the flowers is said to have proved highly pernicious ; and well authenticated cases are recorded of persons having perished from eating the plant itself. The antidotes are, the stomach pump ; and emetics by sulphate of zinc. Afterwards, vegetable acids ; bleeding in cases of great stupor ; and aperients.

The colour of its flowers, and height, are variable. It may be divided at the root for increase.

VACCI'NIUM AMŒ'NUM.

BROAD-LEAVED WHORTLEBERRY.

<i>Class.</i>	<i>Order.</i>
DECANDRIA.	MONOGYNIA.
<i>Natural Order.</i>	
ERICEÆ.	

Native of N. America.	Height. $2\frac{1}{2}$ feet.	Flowers in May, June.	Duration. Perennial.	Introduced in 1765.
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No. 211.

The word *Vaccinium* is an ancient Latin name of different significations, and some have thought that its meaning is the same as though it were *baccinum*, relating to *baccæ*, or berries. *Amœnum*, from the Latin, pleasant. The old English term *whort*, signifies herb; and it is probable that Whortberry or Wortleberry, had reference to berries which grew on low or herb-like plants.

Sir Joseph Banks excited considerable interest a few years ago, by his successful cultivation of the *Vaccinium macrocarpon*, (now *Oxycoccus macrocarpus*) or American Cranberry; the imported fruit of which has been long known in England, and is esteemed wholesome and pleasant. As the proper culture of it is not difficult, as was formerly conceived, we shall hereafter notice this plant.

The *Vaccinium amœnum* forms an undershrub; and probably its berries may prove a desirable addition to our esculent fruits, as well as those to which we have alluded.

It delights in a cool shady situation, and a light friable soil, composed of loam and peat, or loam and decayed leaves. Propagate by layers.

ASTRANTIA MAJOR.

GREATER BLACK MASTERWORT.

<i>Class.</i>	<i>Order.</i>
PENTANDRIA.	DIGYNIA.
<i>Natural Order.</i>	
UMBELLIFERÆ.	

Native of Alps of Eur.	Height. 18 inches.	Flowers in June, Sept.	Duration. Perennial.	Cultivated in 1596.
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No. 212.

Astrantia, from the Greek **ASTRON**, a star; and **ANTIOS**, against, or meeting, from its star-like involvulum, against which is its umbel of flowers. Major, greater. Masterwort is a name which was used by old English herbalists, as synonymous with the Latin name *imperatoria*, from the imperial virtues which the plant was believed to possess.

From the accounts given of Astrantia, in almost every modern work, we may be supposed to have now treated our friends with a rather unworthy subject. One botanist gave an opinion, that the Astrantias possessed little beauty, and were seldom met with except in botanic gardens; this sentiment was bandied from writer to writer, evidently without examination of their actual claims to notice.

We beg to enter our protest against this calumny; and to call attention to the present plant, and also to another of the same genus, as our next subject.

It must not be overlooked that they are umbelliferous; each umbel bearing a mixture of fertile and sterile flowers. Though not gay, the Astrantia major has beauty, and furthermore, it asks but little care of the cultivator.



Astrantia maxima.



Phlox reflexa.



Tagetes lucida.



Tiarella cordifolia.

ASTRANTIA MAX'IMA.

THREE-LEAVED BLACK MASTERWORT.

<i>Class.</i>	<i>Order.</i>
PENTANDRIA.	DIGYNIA.
<i>Natural Order.</i>	
UMBELLIFERÆ.	
Native of Carniola.	Height. 2 feet.
	Flowers in June, Sept.
	Duration. Perennial.
	Introduced in 1804.

No. 213.

The derivation of *Astrantia* is given in the preceding article. *Maxima*, from the Latin, greatest.

The plants of this genus, as before observed, have met neglect from many of the admirers of vegetable beauty. The expression of Sir J. E. Smith seems to imply this, when he says of the *Astrantia major*, ‘It is not found in every flaunting flower garden.’

It is by examination and attention that the superior attraction of many plants can be duly appreciated. Even without exertion of the mind, some objects, at first sight, produce a high sense of their beauty; they possess an external pleasing character too evident to escape the notice of the most careless. This may be called instinctive beauty, and which most of the inhabitants of the flower garden possess; or, according to Locke, produce. Others excite a pleasure and a sense of their beauty, chiefly from examination, and comparison with subjects of the same class, and to which they probably are superior. To this denomination of beauties our plant may be said to belong. It is rational beauty, which the mind is capable of comprehending, not instinctive, which it has difficulty in analyzing.

What umbelliferous plant, we would ask, can be found exhibiting umbellulæ, or partial umbels, of such exquisite delicacy ; with a partial involucrum, coloured and veined as a beautiful corolla. Thus, to a common observer, it is made to appear as a compound flower, and shaded by nature as though it were to assist the delusion.

The umbelliferous plants, so common in our hedges, which bear so great a resemblance to each other in the eye of the casual observer, are not unfrequently rather forbidding to the young botanist ; an acquaintance, however, soon brightens their countenances. Some of our worthiest friends bear but few smiles to a stranger. The common fennel, the wild parsnip, and numerous others of this natural family, may be given as specimens highly deserving examination : their perfect little flowers have their regular petals generally rolled inwards, or inflexed, alternated with stamens in one species or other, that for beauty of curvature may challenge the Analysis of Hogarth.

The *Astrantia maxima* will flourish in any common garden soil ; but a rather strong loam is most suitable, on account of the tendency the plant has to spread when kept in a very light soil : its stems and flowers will also prove more luxuriant, provided the situation be not too dry.

If several flowering stems be produced, we would recommend that part of them be cut off at the bottom, as soon as the first flowers begin to fade ; this will encourage the growth of a second crop of blossoming stems, and secure a display of beautifully delicate flowers till the end of summer.

PHLOX REFLEX'A.

REFLEXED-LEAVED PHLOX.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
POLEMONIACEÆ.

Native of N. America.	Height. 3 feet.	Flowers in July, Aug.	Duration. Perennial.	Cultivated in 1826.
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No. 214.

The name of this genus is derived from a similar Greek word, signifying flame. Reflexa, from the reflexed habit of the leaves of this species.

It may be considered somewhat anomalous to register a plant as native of a country in which it is believed it never existed; yet this is the case with the Phlox reflexa. It has, doubtless, originated in England, still it is not indigenous here; therefore we give the native country of its parents, which most probably are Phlox pyramidalis, and some other of the tall species. Many hybrid varieties, and some which have been considered distinct species, have lately been thus propagated from seeds, but whether they will prove continuing species, may be somewhat doubtful.

This is one amongst the most attractive of the tall species of Phlox, a handsome family, to the various individuals of which it would be very difficult to determine the prior claim to beauty's prize.

It is perfectly hardy, but if planted in a very light dry soil, may be injured, and even destroyed, by summer drought. Cuttings of the young stems strike root readily.

TAGETES LU'CIDA.

LUCID TAGETES.

<i>Class.</i>	<i>Order.</i>
SYNGENESIA.	POLYGAMIA SUPERFLUA.
<i>Natural Order.</i>	
CORYMBIFERÆ.	
Native of Mexico.	Height. 18 inches.
	Flowers in July, Oct.
	Duration. Perennial.
	Introduced in 1798.

No. 215.

It has been supposed that the word Tagetes originated from Tages, the name of an Etruscan deity, grandson of Jupiter, who is said to have taught the Etruscans divination. Lucida, from the Latin, bright.

Though the Tagetes lucida was introduced from a warm climate, it will bear moderate frosts ; and with the assistance of a cold frame, or if planted in the open ground, a temporary covering, may be secured against our most severe weather. As its seeds are freely perfected with us, it is not improbable but it may hereafter be completely acclimated to England, and become one of the standard favourites amongst the prettiest ornaments of the flower garden.

Its leaves, on being held up to the light, show numerous pellucid dots ; and microscopic examination shows also very minute glandular spots, the former concave, the latter convex. The parenchyma or pulp seems deficient under each, as the transparency of the leaf in these parts indicates nothing more than the thickness of the cuticle.

Divide roots in spring ; take cuttings in June ; or raise young plants from seed, and give them a warm situation.

TIARELLA CORDIFO/LIA.

HEART-LEAVED TIARELLA.

Class.
DECANDRIA.

Order.
DIGYNIA.

Natural Order.
SAXIFRAGEÆ.

Native of N. America.	Height. 9 inches.	Flowers in April, May.	Duration. Perennial.	Introduced in 1731.
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No. 216.

The word Tiarella is adopted from the Greek **TIARA**, a diadem or crown; not so much, perhaps, for its peculiar appropriateness to the present subject, as for the close resemblance of its signification to the idea conveyed by the word **Mitella**, the name of another genus, whose flowers are very similar to those of Tiarella.

The name **Mitella**, was first used by Tournefort, from the shape of its seed vessel, which parts at the top to admit the escape of the ripe seeds, and in this state assumes the shape of a little mitre, implied by the name; thus the names are made to resemble each other as well as the flowers. **Cordifolia**, compounded from the Latin, to express the shape of the leaf.

The **Tiarella cordifolia** produces a small cluster of extremely delicate flowers; which are the more welcome as they appear early in the season.

It may be planted in the borders or kept in a pot of light soil, in either of which situations it will succeed; but if in pots, it will be proper to give it protection in severe weather, on account of the roots being more exposed to cold than they are when growing in the open soil.

Hort. Kew. 2, v. 3, 72.



ISOTOMA AXILLARIS.

AXILLARY-FLOWERED ISOTOMA.

Class.	Order.
PENTANDRIA.	MONOGYNIA.
Natural Order.	
LOBELIACEÆ.	

Native of N. Holland.	Height. 18 inches.	Flowers in July, Sept.	Duration. Annual.	Introduced in 1824.
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No. 218.

Isotoma is, we presume, compounded of the Greek *isos*, equal; and *TEMNO*, to cut, in allusion to the equally cut lobes of the corolla of this plant. The term Axillaris is used to distinguish this species on account of the peduncles, or flower stems, being axillary, or growing immediately from the axils of the leaves.

The genus Isotoma has emanated from Lobelia; and the present subject, *Isotoma axillaris* is the *Lobelia senecioides* of Curtis's Magazine; but had not been published as such previous to its appearance in the Botanical Register, on which account it seems to be most generally known as forming a distinct genus.

This pretty slender plant, like many other annuals that deserve to be known, and more generally cultivated, is very seldom met with. This may not, perhaps, be matter of surprise, when we consider the insufficiency of encouragement given by the wholesale London seed merchant, to those who would be willing to raise scarce seeds. On the London dealers the greater part of the country is dependant for a supply, and they are determined enemies to the

increase of sorts. They esteem it increase of plants, without increase of profit; and the propagation of the latter of the two may easily be conceived to be far the most attractive. There are, however, individuals in the trade, who possess both taste and science, but we believe scarcely one who does not avoid introducing this feeling into his business as seedsman. The nurseryman, on the other hand, has no wish to dispose of scarce seeds, because he can propagate and sell new plants to much greater advantage. Thus, unless the botanist or florist has private friends, through whom he can obtain a supply of the more rare exotics, very little chance is afforded him of gratifying his wishes by the possession of new beauties:—beauties rendered the more desirable by the praises which their novelty excites.

If these observations should meet the eye of any one willing to exert himself for the gratification of the lovers of a flower garden, and doubtless, for the benefit also of his own finances, we shall be glad to combine a list of his sorts with some future number. If the prices also of the most rare could be added, it would be additionally convenient; and very choice rare seeds may be sold by number.

Seeds of *Isotoma* may be sown in April, on a gentle hotbed; or in pots, in a greenhouse or cucumber bed; and as soon as the young plants are up they should be gradually exposed to the atmosphere. When an inch or two high, they may be transplanted into pots for flowering, or into the open borders, three or four together, where, with a little support to their slender stems, they will form an elegant though not splendid ornament.

AMMOBIUM ALATUM.

WING-STALKED AMMOBIUM.

<i>Class.</i>	<i>Order.</i>
SYNGENESIA.	POLYGAMIA ÆQUALIS.
<i>Natural Order.</i>	
COMPOSITÆ.	

Native of N. Holland.	Height. 2 feet.	Flowers in June, Sept.	Duration. Perennial.	Introduced in 1823.
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No. 219.

The term Ammobium is derived from the Greek **AMMOS**, signifying a sandy soil, or a place parched by the sun; and **BΙΟΣ**, life. This was given by Mr. Robert Brown, in allusion to the situation in New South Wales, where he discovered it growing. Alatum, from the Latin, winged; which refers to four or five thin undulated membranous appendages, which grow longitudinally up the stems, and are called wings. Each of the narrow stem leaves is formed by the termination of some two of these membranes, which commence again immediately above every leaf, and give the stem a singularly irregular appearance.

This remarkable herbaceous plant is at present by no means common, and even for its singularity deserves attention.

It should be planted in a warm border of light sandy soil, where it will remain tolerably dry during winter; as cold is not so much its enemy as moisture. Or, it will flower exceedingly well if kept in a pot of light soil, but then it should have the protection of the cold frame in winter. It may be divided for increase; or is easily raised from seeds.



LOPEZIA CORONATA.

CORONET-FLOWERED LOPEZIA.

Class.

MONANDRIA.

Order.

MONOCYNIA.

Natural Order.

ONAGRARIE.

Native of	Height.	Flowers in	Duration.	Introduced
Mexico.	3 feet.	July, Oct.	Annual.	in 1805.

No. 220.

This genus was established by M. Cavanilles, a Spanish botanist of the last century, in honour of his countryman Lopez. Coronata, from the Latin, in allusion to its crown of flower buds.

This pretty annual exhibits its delicate blossoms when only two or three inches high; and continues growing, flowering, and seeding, till it attains the height of as many feet.

The protection of the anther is very nicely effected by its enclosure in a little white appendage, growing immediately beneath it; an appendage which Linnæus would call a nectary; a distinction we prefer to either petal or abortive stamen. When the flower opens, the stamens acquire a tendency to rise; whilst the nectary, clasping the anther, as pertinaciously holds it down; till at length the warmth, by contracting the exposed parts of each antagonist, occasions the stamen to extricate itself with a spring or leap. As this liberation occurs when the anther is matured, its sudden action serves to disperse the pollen.

Sow seeds in the borders in March. Those shed from the plant, frequently vegetate in spring.

Hort. Kew. 2, v. 1, 10.





Potentilla splendens



Muscari comosum.



Aster Novae Angliae.



Campanula nitida.

POTENTIL'LA SPLEN'DENS.

SPLENDID CINQUEFOIL.

Class.
ICOSANDRIA.

Order.
POLYGYNIA.

Natural Order.
ROSACEÆ.

Native of Nepal.	Height. 2 feet.	Flowers in July, Sept	Duration. Perennial.	Introduced in 1822.
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No 221.

The name of this genus is said to have had its origin in the Latin word potentia, signifying power; but as it is the diminutive of that word, signifying little power, it must have been to the weakness of its medicinal qualities that the name was intended to have reference. Splendens from the Latin, splendid.

The splendour of this herbaceous plant, intimated by its name, cannot be considered to be of very prominent character. Its attractions are principally in its foliage, which exhibit very great beauty; particularly its long pinnate root leaves, which have a fine silvery effect, especially on their under surface; and this beauty seems rather to increase than diminish, as they become dry.

It may be divided at the root for increase, which will be best performed in the spring; this allows an opportunity for the full establishment of the plant in its situation before winter, which is desirable, for it is occasionally destroyed by severe frosts when not well rooted, or when in a very moist situation. A light loamy soil, in a southern aspect, is very favourable to its luxuriant growth.

MUSCA'RI COMO'SUM. *monstrosum.*

FEATHERED GRAPE-HYACINTH.

<i>Class.</i>	<i>Order.</i>
HEXANDRIA.	MONOGYNIA.
<i>Natural Order.</i>	
ASPHODELEÆ.	

Native of S. Europe.	Height. 1 foot.	Flowers in Apr. May.	Duration. Perennial.	Cultivated in 1596.
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No. 222.

The term *Muscari* is derived, according to old writers, from the Greek *MUSCOS*, smelling of musk. This odour is somewhat predominant in one or two of the species of *Muscari*, which are tolerably fragrant. *Comosum* from the Latin, signifying full of branches or leaves.

This plant is supposed to have been produced by seeds of the Tasseled Hyacinth, the *Muscari comosum*; therefore of such species the present subject is considered but a variety. This must be received as conjecture only, since the English botanists of the sixteenth century, knew no more than ourselves of its origin.

It is a bulbous plant, very generally admired for its beauty and singularity; and certainly, from the first appearance of its solid head, to the complete expansion of its filamentous panicle, it is a singular monstrosity, very unlike the usual character of flowers, but not inferior in attraction.

This plant succeeds in any common garden soil, in any aspect. Its bulbs may be removed as soon as the leaves are decayed, in August, or at any time during the autumn.

ASTER NOVÆ-ANGLIÆ. ruber.

RED NEW ENGLAND STARWORT.

<i>Class.</i>	<i>Order.</i>
SYNGENESIA.	POLYGAMIA SUPERFLUA.

<i>Natural Order.</i>		
CORYMBIFERÆ.		

Native of N. Ameria	Height. 6 feet.	Flowers in Sept. Oct.	Duration. Perennial.	Introduced in 1812.
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No. 223.

The name ASTER has been applied to this genus, on account of the flowers having the appearance of a star; which the word, in the Greek language, is used to indicate. Novæ Angliæ, New England; that part of North America whence this beautiful Aster was introduced; a country which has been traversed by several eminent botanists, and many splendid subjects brought from its woods and hills.

New England occupies a most fertile and healthy portion of the United States, and has a rich display of the beauties of the vegetable creation. Its climate is particularly salubrious, lying between 41 and 48 degrees of north latitude. Its inequality of surface also is peculiarly favourable to the production of plants in very great variety; for that which principally enlarges the catalogue of vegetable species in particular districts, occurs here in an eminent degree. We allude to the difference between the lowest point of its valleys and plains, and the summits of its highest mountains. Altitude, as well as latitude, gives a boundary to the existence of vegetables; and where one species terminates its life, from heat or cold, another begins to vegetate.

New England is bounded on one side by the Atlantic Ocean, whilst in its interior, the White Mountains raise their lofty heads nearly ten thousand feet above the level of the sea, piercing the dense clouds great part of the year in a mantle of snow.

The poet's description of a more northern climate is not inapplicable :

There winter, armed with terrors here unknown,
Sits absolute on his unshaken throne ;
Piles up his stores amidst the frozen waste,
And bids the mountains he has built, stand fast ;
Beekons the legions of his storms away
From happier seenes to make the land a prey ;
Proclaims the soil a eonquest he has won,
And scorns to share it with the distant sun.

How delightful a transition to leave such a picture of desolation, where the hardy birch can scarce unfold its miniature foliage; nor the pine dare to fix itself in a region so severe : to descend the declivities, where rocks and precipices lie in wild chaos ; where cataracts and cascades accompany the eager botanist, as he meets new treasures at every step. Still onward descending, amongst barren steeps, mingled with luxuriant glens, diversity of surface bearing diversity of plants ; till the rude waters he saw in the heights of the mountain, swell at its base into majestic rivers, and glide through valleys of delightful fertility and luxuriance.

The pink variety of the *Aster Novæ Angliae* is the most desirable of all the tall autumnal-flowering species. It increases very fast, in any common soil, and, for increase, requires only to be divided at the root in spring or autumn.

CAMPAN'ULA NIT'IDA.

SMOOTH-LEAVED BELL-FLOWER.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
CAMPANULACEÆ.

Native of	Height.	Flowers in	Duration.	Introduced
N. America	4 inches.	July.	Perennial.	in 1731.

No. 224.

Very few names more correctly designate any particular character of an extensive genus, than Campanula does the present, signifying a little bell: it is from the Latin, as is the word Nitida, signifying neat, shining, smooth; either of which meanings may with propriety be applied to this plant.

The *Campanula nitida*, is a desirable little subject for cultivation, either in the borders or in pots. Its low stature, and neat upright growth, claim for it a situation in the foreground, where plants of a more rambling habit may not hide its delicate flowers, or its neat little tufts of deep green leaves.

It is particularly hardy, and will grow well in any aspect, and produce its flowering stems; but notwithstanding this, flowers will not always be the consequence. We have seen it remain in a very light, rather peaty, soil, for several years without maturing a flower; but on being put into a small pot of tolerably rich soil, or planted in an open situation, in rather strong well manured loam, its flowers were freely produced in perfection. Its rigid foliage always possesses a neatness, and character of health, which make it desirable for pot culture.

Hort Kew. 2, v. 1, 346.





Narcissus jonquilla.

55



Coronilla varia.

56



Ledum laetarium.

57



Campanula speciosa.

J. Batt. sculp.

NARCIS/SUS JONQUIL/LA.

JONQUILL.

Class.
HEXANDRIA.

Order.
MONOGYNIA.

Natural Order.
AMARYLLIDÆ.

Native of Spain.	Height. 1 foot.	Flowers in April, May.	Duration. Perennial.	Cultivated in 1597.
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No. 225.

It is generally allowed that the term *Narcissus* originated in the Greek word *NARKE*, stupor; whence comes narcotic, used to designate such drugs as stupify. But some writers maintain that the name was first applied by the ancient poets to the fabled boy, who very stupidly fell passionately in love with his own shadow in a fountain. They further pretend that he pined away, from excess of passion, and by favour of the gods was changed into the flower that now bears his name. Pliny directly contradicts this application of the name from the fabled *Narcissus* of the poets, and says, it was given to the plant on account of its qualities; which he describes as hurtful to the stomach, and as stupifying to the senses. Old writers termed this species of *Narcissus* the rush-leaved, or *juncifolius*; and from the same idea comes *jonquilla*, a little rush.

The bulbs of *Narcissus jonquilla* should be taken up at least every alternate year, about Midsummer, and planted again in October. If left too long undisturbed, the bulbs will be found to have grown deep in the soil, and they will become altogether unproductive of flowers.



CORONIL/LA VA'RIA.

VARIOUS-COLOURED CORONILLA.

<i>Class.</i>		<i>Order.</i>
DIADEPHILIA.		DECANDRIA.
<i>Natural Order.</i>		
LEGUMINOSÆ.		
Native of Europe.	Height. 4 feet.	Flowers in Aug. Oct. Duration. Perennial.
		Cultivated in 1597.

No. 226.

Diminutives, in the English, Italian, and French languages, are generally formed by the addition of a syllable; as in the present instance, Coronilla, a little crown, is derived from the Latin *corona*, a crown. Other examples are at hand, as *juncus*, *jonquilla*; *campana*, *campanula*. The trivial name, varia, is from the Latin; and probably not at first given so much on account of the colours that occur in one flower, as from the inconstancy of the usual tints, in different varieties. From various authors we learn that as well as party-coloured, as seen in our specimen, it has sometimes been found wholly purple; and also entirely white.

When fully established, the *Coronilla varia* becomes very ornamental; but like other herbaceous climbing plants, will require to be supported. This may be sufficiently effected by a single upright stick, round which it should be tied, as its growth happens to require.

From its height it will accord very well with the front of the shrubbery; and as its roots are much given to spread, and throw up young shoots rather obtrusively, such situation should be preferred to

the herbaceous flower compartment, unless it be planted in a large pot, which may be sunk beneath the soil; and thus its roots will be properly confined.

It is observed by Professor Martyn, that "This plant was formerly proposed to be cultivated as a proper food for cattle; and it was found that it grew very readily, and might be very beneficial to the farmer. Mr. Miller informs us that he remembers to have seen a large spot of ground planted with it at Deepden near Dorking in Surrey, at a seat of the Honourable Mr. Howard; where, although it had been neglected for some years, it was growing so rank as to get the better of all the weeds, brambles, &c. He found some of the branches upwards of five feet long, and very tender their whole length; so that a small spot of ground will supply a considerable quantity of fodder, especially in dry seasons. Horses and Cows seemed to eat it greedily."

"Mr. Curtis remarks, that its bitterness will be an objection to its being cultivated for cattle. A gentleman, however, who has lately sown it on my recommendation, assures me that cows eat it very readily."

The above evidence is sufficiently conclusive to induce a belief that it may occasionally be cultivated by the farmer, with advantage. And though it does not attain its full strength and luxuriance so readily as the annual sorts of leguminous plants; still it may be raised from seeds with much facility; and the principal care required, will merely extend to keeping it free from weeds, during the first year of its growth. In the garden, it may be increased with little trouble, by dividing its roots.

LE'DUM LATIFO'LIUM.

BROAD-LEAVED LEDUM.

Class.
DECANDRIA.

Order.
MONOGYNIA.

Natural Order.
RHODORACEÆ.

Native of N. America	Height. 2 feet.	Flowers in April, May.	Duration. Perennial.	Introduced in 1763.
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No. 227.

The Greek word **LEDON**, was originally used to distinguish a shrub which produced an odoriferous gum, called ladanum, or the labdanum of commerce; a gum which the ancients held in high estimation; and if good, it is observed by an old writer, "It should have a wild and savage smell." The shrub alluded to, is supposed to be the cistus creticus of modern botanists. The name Ledum, was probably applied by Linneus to the present genus, on account of these plants possessing some similar qualities. **Latifolium**, from the Latin *latus*, broad; and *folium*, a leaf.

This species of **Ledum**, forms a very pretty little standard evergreen shrub, of compact growth; and as each branch is terminated by a neat corymb of white flowers, the whole plant, in spring, presents one beautiful bouquet. It is equally well adapted to the flower garden and the shrubbery; and when planted in the latter of these, a situation should be chosen where it will neither be lost by distance, nor overgrown by larger subjects.

Its young leaves, examined in the summer, through a microscope, will be seen to be studded, on their

upper sides, with little globules of odoriferous gum, shining like the topaz ; whilst their inferior surface is nicely clothed with a vegetable fabric like cotton, that in winter is closely applied to the tender shoots, as a protection against the inclemencies of the rigorous climate of Labrador, Greenland, and other similar situations, of which it is native.

The young shoots themselves, are also covered with a similar material, and so evident a contrivance is rarely observed for the protection of a shrubby plant. Here are rigid leaves charged with resin, impervious to moisture, and defying the cold : these in winter, change their position, turn down, and clasp the shoot from which they issued ; nor leave their charge till summer warmth is felt again.

Philosophers have found difficulty in distinguishing instinct from reason. Locke would not admit the distinction. It can scarcely be denied that the locomotion of this plant is to instinct, what instinct is to reason. Proud man, in his present imperfection, is but few removes from the weed he treads upon.

The *Ledum latifolium* may be propagated by layers of the young wood, which will strike root, and they may be taken off in about two years. In taking off layers, or in transplanting, as much soil as can be conveniently taken about the roots, should be removed with them. They are sometimes raised from seeds also. A mixture of peat and light loam, or if peat be wanting, rotten leaves and loam, will constitute a proper soil for the *Ledum*. An eastern aspect is preferable to any other. An exposed southern situation should not be chosen, unless the soil can be kept perfectly moist during summer.

CAMPANULA SPECIOSA.

SHOWY BELL-FLOWER.

Class.

PENTANDRIA.

Order.

MONOGYNIA.

Natural Order.

CAMPANULACEÆ.

Native of Siberia.	Height, $1\frac{1}{2}$ feet.	Flowers in June, Aug.	Duration. Perennial.	Introduced in 1824.
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No. 228.

Campanula, from the Latin, a little bell; speciosa, beautiful, handsome, showy.

The genus Campanula, has long enjoyed the attention of English florists, under the like title; or under the more familiar one of Canterbury-bells; a term originally applied to a particular species, but now frequently given indiscriminately to all those of tall growth.

Although the Campanula speciosa exhibits a depth of colour equal, if not superior, to any other of the same family, and is a gay plant for the mingled flower border, still the term speciosa, in a genus of such specious character, is very indefinite, and the usual English translation, showy, is comparatively less characteristic than beautiful; for size renders several species more showy, but not more beautiful. It bears resemblance to the species, glomerata, and coronata. For colour it is preferable to either of them; but is not so perpetual a flowerer as the glomerata.

It demands very little of the cultivator's attention, a recommendation not often despised. It may be divided for increase, and will grow in any common garden soil.

Loudon's Ency. of Plants, sp. 2663.





Cyclamen coum



Aubrieta purpurea



Primula elatior



Silene acaulis

CYCLAMEN COUM.

ROUND-LEAVED CYCLAMEN.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
PRIMULACEÆ.

Native of S. Europe.	Height. 2 inches.	Flowers in Feb. March.	Duration. Perennial.	Cultivated. in 1596.
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No. 229.

The word Cyclamen is deduced from the Greek **KUKLOS**, signifying a circle; which has generally been said to allude to the roundness of its leaves or its roots; but it would appear much more likely to have been intended as an allusion to the circular coiling of its peduncles, or fruit stalks. These would readily attract notice, but the former possess no peculiarity. Coum, an old botanical term, perhaps from the island of Cos, in the Archipelago.

The English name Sowbread ; and a similar one in other European languages, originated where the Cyclamen is indigenous, from its being sought after and eaten by swine.

They are all beautiful little flowers, and are best adapted to pot culture; for their diminutive stature and unobtrusive habits are ill suited to the society of subjects in the general flower border; amongst which many raise their heads so high as to overshadow and tyrannically trample all beneath them; whilst others, though even lower than our modest cyclamen, spread forth, with vigilance, in their obscurity, and avariciously possess themselves of the quiet homes of their more valuable neighbours; they unite the

covetousness of king Ahab, with the mischievous powers of his wife Jezebel.

The ancient Greek and Latin authors attribute both good and bad qualities to the cyclamen; and our own Gerarde, comparatively but few years ago, echoes their superstitions. Pliny mentions the plant as dangerous, and that passing near it is said to produce miscarriage.' Gerarde gives implicit credit to the assertion; and in the simplicity of his heart, good man, guards against misfortune. He says, that in his garden, about the place where the cyclamen groweth, he fastened sticks in the ground, and put others cross ways over them, lest, by lamentable experiment, his words be found true.

Very few of the admirers of the *Cyclamen* endeavour to increase any of them by seed; which must be regretted, both on account of the almost certain success which would attend their attempts, and also from their comparative scarcity being hereby perpetuated.

Many have, probably, been deterred from the practice, by an erroneous statement, which has been copied from book to book, asserting that seedlings are five years before they flower. With proper management, they flower at two years old, and require no uncommon attention.

Seeds should be sown in shallow pots of light rich soil as soon as they are ripe, be exposed to the morning sun, and kept moderately damp. The plants will appear in autumn, and during winter, should have protection from frosts. In May they should be turned from the pots into a bed of fine soil, and in September be repotted. In the following May the same course may be again pursued.

AUBRIETIA PURPUREA.

TUFTED AUBRIETIA.

Class.

TETRADYAMIA.

Order.

SILICULOSA.

Natural Order.

CRUCIFERÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Levant.	3 inches.	Mar. May.	Perennial.	in 1821.

No. 230.

Aubrietia, is a title used in honour of *Aubriet*, a French botanical draughtsman of celebrity. *Purpurea*, from the Latin, purple. It is the *Arabis purpurea* of the *Flora Græca*.

This plant is a very desirable ornament to the flower border, is perfectly hardy, and flowers very freely during a month or two in the spring, and also in the autumn; indeed, a partial display of its flowers is seen through great part of the year. It may also be advantageously planted on rock-work, in a warm aspect, where it will grow luxuriantly. We have never kept it in pots, but it appears to be a very suitable plant for the purpose; and doubtless, if afforded protection, during the months of January and February, would flower earlier than in the open ground, and constitute a delicate spring ornament for decorating the hall or portico.

In congenial soil, it increases fast, and should be divided, and replanted once a year; which may be done early in spring, or toward the end of September. In a light loam, mixed with a little peat, or other well-decayed vegetable mould, it succeeds as well as can be desired.

PRIM'ULA VILLO'SA. flore albo.

WHITE VILLOUS AURICULA.

<i>Class.</i>	<i>Order.</i>
PENTANDRIA.	MONOGYNIA.
<i>Natural Order.</i>	
PRIMULACEÆ.	

Native of Switzerland.	Height. 3 inches.	Flowers in April, May.	Duration. Perennial.	Introduced in 1768.
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No. 231.

Primula, from the Latin *primus*, first; in allusion to its being amongst the first flowers of spring. Villosa, from the same source, signifying woolly; both the tube of the corolla, and leaves, being somewhat villous.

The present subject is known by many as the *Primula nivalis*, and our figure of it was engraved previous to examination, under credit given to such title. Comparison with its specific character shows it to be the white variety of *Primula villosa*, which is at once distinguished from *nivalis*, by the shape of its leaves; those of the latter being spear-shaped, and otherwise different.

It is almost needless to speak in terms of commendation on any of the primula tribe. They are, every one of them, standard favourites, and need no introduction. It is only required that they show their modest faces to secure a friend in every garden.

The *Primula villosa* requires but little care; in a light loam, with a portion of well-decayed leaves, or other vegetable mould, it is sure to succeed. It is best kept in a pot; and should be repotted in the latter part of each summer.





Vinca herbacea.



Onosma taurica



Hepaticia bullata.



Magnolia conspicua.

VIN'CA HERBA'CEA.

HERBACEOUS PERIWINKLE.

<i>Class.</i>	<i>Order.</i>
PENTANDRIA.	MONOGYNIA.
<i>Natural Order.</i>	
APOCYNEÆ.	
Native of Hungary.	Height. 3 inches.
	Flowers in May, July.
	Duration. Perennial.
	Introduced in 1816.

No. 233.

Vinca is a contracted name from Pervinca, the primitive term, as used by the ancients; the origin of which is now buried in obscurity. The Latin *vincio*, to bind, from the branches entangling themselves with other plants, has been given as an original source, but with very little evidence of certainty. The English Periwinkle, which was *Pervinke*, no longer ago than the time of Chaucer, is but a trifling variation from the ancient word.

The several species and varieties of hardy Periwinkle, are particularly useful in covering banks and irregularities, which lie under the drip of trees or shrubs.

The *Vinca herbacea* is of very free growth, but the British species, *Vinca minor* and *Vinca major*, are evergreen, and far more abundant in foliage; these should therefore be preferred, where the only object is that of covering small dells or banks in the interior of the shrubbery.

Any of the species may be increased with facility, merely by fastening their long prostrate branches beneath the soil. They strike root in a few months, and may then be removed.

ONOS'MA TAU'RICA.

GOLDEN-FLOWERED ONOSMA.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
BORAGINÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Tauria.	3 inches.	Apr. June.	Perennial.	in 1801.

No. 234.

Onosma is a name that was used by Dioscorides and others, supposed to be derived from the Greek OSME, a smell or savour; and if so, applied by them, without doubt, to a plant peculiarly distinguished for its pleasant odour.

From the very imperfect descriptions afforded by the works of the ancients, it has been impossible for modern botanists to identify their plants; but such names as had been used by them, which were not inadmissible, on account of barbarous construction, have generally been retained, in preference to burthening our botanical vocabulary with new ones. Thus it will appear, as in the present instance, that their origin must sometimes be obscure, and their application imperfect.

Where the soil is dry, and the situation sufficiently warm and sheltered to support it in health, this little plant becomes desirable as an ornament to the flower border.

Planted in fresh sandy loam, amongst rock-work, or on the side of a mount, in a southern aspect, it will flourish abundantly. A plant of it may also be kept in a pot amongst the alpines.

HELO'NIUS BULLATA.

SPEAR-LEAVED HELONIUS.

Class.
HEXANDRIA.

Order.
TRIGYNIA.

Natural Order.
MELANTHACEÆ.

Native of N. America.	Height. 9 inches.	Flowers in April, May.	Duration. Perennial.	Introduced in 1758.
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No. 235.

Helonius, from the Greek *HELÒS*, a marsh, seems to have been adopted on account of the moist situations in which some of the species are found indigenous. Bullata, from the Latin, signifying decked with studs ; given in allusion to the studded appearance which the anthers produce in the general effect of the raceme of flowers. As bullata also signifies vain or empty, it is not unappropriate to the plant, as a scentless beauty.

If not odoriferous, it is very attractive in appearance, and nicely adapted for cultivation in a pot ; or in the mixed flower border, with Scilla, Hyacinth, Narcissus, and other similar spring beauties.

It will grow kindly in light peaty soil ; or, if this be inconvenient to obtain, rotten leaves, with a small portion of any common soil, will constitute a good substitute. It increases by suckers ; and is said sometimes to ripen its seed, but this we have never observed to occur.

Pot culture affords the best opportunity for its protection, whilst in flower ; which is often desirable with this and other similar subjects that produce their blossoms early in the season.

MAGNOLIA CONSPICUA.

YULAN MAGNOLIA.

Class.	Order.
POLYANDRIA.	POLYGYNIA.

Natural Order.
MAGNOLIÆ.

Native of China.	Height 30 feet.	Flowers in Mar. April.	Duration. Perennial.	Introduced in 1780.
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No. 236.

The term Magnolia has been adopted in honour of Peter Magnol, a diligent French botanist, born in 1638, resident at Montpellier. Conspicua, from the Latin, synonymous with the English word, conspicuous, excepting that it also implies beautiful. Yulan, from *yu*, purple, and *lan*, a lily, is the vernacular name; probably applied indiscriminately to a purple flowered species, and also to our present subject.

There is not, perhaps, any family of trees existing through the forests of all the milder regions of the earth, which combines so magnificent an assemblage as we find united under the name Magnolia. Some species raise their lofty branches above an hundred feet in height; whilst others vary from twenty to fifty; and two or three are dwarf. They are clothed in bright and elegant foliage; and most of the species produce thousands of lily-like odoriferous blossoms, that may literally be said to perfume the whole country which they inhabit. Kalm says, that by the scent, a tree in flower, may be discovered at the distance of three quarters of a mile; and some persons compute that their lemon-like odour is occasionally perceptible at three or four times that distance.

Mr. Loudon, in the 2nd vol. of his very useful Magazine, mentions having seen a tree of *Magnolia conspicua*, in the Kensington nursery, covered, as he says, with eleven hundred tulip-like blossoms, white as snow, and highly odoriferous. He considers it one of the finest objects in the vegetable creation, and observes, that no person who has the slightest pretensions to a love of plants, and a garden, ought to be without it.

It is a deciduous tree, and equally adapted for training against a wall, or planting as a standard; though it must be admitted, that under the latter circumstances, in our boisterous and uncertain months of March and April, its flowers have less chance of appearing in their fullest state of excellence; particularly as they are produced before the tree has perfected its foliage. As it flowers freely, whilst a small tree, and its wood young, it may be kept to the size that is most desirable, either trained on a wall six feet square, or one of thirty.

In all cases, where there is a choice of situation, a south, or south-east, aspect should be preferred; and it will also be advisable to take the benefit of shelter from a northernly exposure, where such advantage offers itself.

A mixture of peat and loam, on a rather moist sub-soil, will be very suitable to our present subject; and the most ready method of increase is by layers. If these are made early in the spring, after the method of carnation layers, they will be fit for removal in eighteen months. They should have protection from severe frosts, during the two or three first winters of their growth.



Sida malviflora

52



Aster tenellus.

53



Arnica montana.

54



Andromeda Mariana

55

SIDA MALVÆFLO'RA.

MALLOW-FLOWERED SIDA.

Class.

MONADELPHIA.

Order.

POLYANDRIA.

Natural Order.

MALVACEÆ.

Native of N. America.	Height. 4 feet.	Flowers in June, Oct.	Duration. Perennial.	Introduced in 1826.
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No. 237.

Sida is a word which, like many others in botanical nomenclature, is derived from the Greeks; and as we find no application of the term SIDE by that people, but as the name of a vegetable, it may fairly be inferred, as most probable, that it is a primitive word, not otherwise employed.

This elegant species of Sida was raised by the Horticultural Society, from seeds collected by Mr. David Douglass, in North America. It does not possess the conspicuous character of some others of the same natural order which ornament our gardens, as Malope, Lavatera, Malva, &c., nevertheless, it needs no friendly introduction; for the elegance and delicacy which its flowers possess, will constitute, on first sight, a sufficient recommendation of it to all the patrons of a flower garden; and amongst these, in civilized Britain, whom do we not include?

It can be easily raised from seeds, which should be sown in the spring; and in autumn the seedlings should be planted singly in the situations in which they are intended to flower. By a succession of young blossoming stems, it will continue in gaiety for several months. No peculiar soil or aspect is required.

ASTER TENELLUS.

SLENDER ASTER.

Class.	Order.
SYNGENESIA.	POLYGAMIA SUPERFLUA.
Natural Order.	
CORYMBIFERÆ.	

Native of C. G. Hope.	Height. 9 inches.	Flowers in June, Sept.	Duration. Annual.	Introduced in 1774.
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No. 238.

Aster is from the Greek, and denotes a star. Tenellus, from the Latin, in allusion to its tender or delicate stems.

This species, as indicated by our date of introduction, has been long cultivated in England. Curtis published it as a greenhouse perennial; and in later works, it is noticed as biennial by some authors, and by others as annual. We really are unable to determine the correctness of one or other of these opinions, nor does it materially concern us to do so; for, as a hardy plant, it can only be cultivated as an annual, and as such we have found it a suitable variety in the flower border, though not of splendid character.

It may be sown as early as the month of March, in a pot of light rich soil, which should be placed in a hotbed, till the plants are sufficiently strong to transplant into the borders, which will not be earlier than the beginning of May. It will succeed very well in a light dry soil, and open exposure to the south. If planted in the mingled flower border, one or two plants will be sufficient in each situation, where it will generally blossom till destroyed by autumnal frosts.

Hort. Kew. 2, v. 5, 49.

ARNICA MONTANA.

MOUNTAIN ARNICA.

<i>Class.</i>	<i>Order.</i>
SYNGENESIA.	POLYGAMIA SUPERFLUA.
<i>Natural Order.</i>	
CORYMBIFERÆ.	

Native of Europe.	Height. 1 foot.	Flowers in July, Aug.	Duration. Perennial.	Introduced in 1759.
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No. 239.

Arnica is supposed, by most authors, to have been derived from the Greek **PTARNUMAI**, to sneeze; either directly, or by a corruption of our term ptarmica, sneezewort. It would seem much more probable, that Arnica may have originated in the Greek **ARNAKIS**, signifying a lamb's skin with its wool; which, in many cases, may be not inaptly applied. Montana, mountain, from the Latin, given on account of its being found indigenous to mountainous parts of Europe.

Notwithstanding the *Arnica montana* possesses rather potent qualities, we have no particular notice of it from the ancients. This is the less remarkable, when considered a native of Europe only; where the old herbalists have been eminent rather on account of their empiricism than their science. The principal part of their knowledge was drawn from the Greeks; whom Pliny, nearly eighteen hundred years ago, then called the ancients, and extolled their perseverance. He says, they climbed to the tops of the highest mountains, travelled through deserts, and searched every corner of the earth, to find herbs, and discover their virtues. He then complains of the ignorance

and superstition of his own time, and we believe his animadversions would equally apply to any period included in the subsequent thirteen hundred years.

From the concurrent testimony of various authors, it may be presumed that, as a tonic and antiseptic, this plant is of great value. Dr. Collin, of Vienna, states that he cured nearly one hundred and fifty cases of ague of different varieties, with the extract of *Arnica montana*; and in putrid fevers, its anti-septic qualities he found to be equally eminent. The French extol it as a tonic in paralysis; and various other continental practitioners bear testimony to its virtues. Though it occupies a place in our Pharmacopœias, it never has attained, amongst British practitioners, a proportionably high character.

The extract is given, according to Dr. Crichton, in the quantity of a drachm per day. If a quarter of an ounce of the plant be infused in a pint of water, half of the infusion may be taken in the course of twenty-four hours. Of the powdered leaves or root, the dose is from five to ten grains. From its active qualities, this medicine is not well adapted to domestic use; but in the hands of a medical man, there can be no doubt but its properties may be productive of very beneficial effects.

The *Arnica montana* is an ornamental herbaceous flowering plant, of a rather showy character, somewhat remarkable for the drooping irregularity of its petals. It grows freely on a moderately dry border of peat and common garden soil; and may be divided, in the spring, for increase; but this should not be practised frequently, or it will be kept too weak to flower in its natural luxuriance.

ANDROMEDA MARIA'NA.

MARYLAND ANDROMEDA.

Class.
DECANDRIA.

Order.
MONOGYNIA.

Natural Order.
ERICÆ.

Native of N. America.	Height. 2 feet.	Flowers in June, July	Duration. Perennial.	Introduced in 1736.
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No. 240.

The mythological story of the beautiful Andromeda, has been previously noticed; and Linneus's reason for the application of it should not be omitted. He found the *Andromeda polifolia* decorating the marshy grounds of Lapland. Its flowers, when expanded, are a most delicate flesh colour, resembling the beauty of the finest female complexion; which reminded him of Andromeda, as pictured by the poets. She, too, was chained to a rock in the sea, as her vegetable prototype is fixed on a hillock in the swamps of the north. His analogy is carried further, but these are the leading features that induced him to call his new genus *Andromeda*.

Though this little shrub is a native of marshes, and wet places, in its native country, and may be expected to succeed best in similar situations with us, still a very wet soil is not indispensable to its healthy growth. If it be planted in well pulverized peat, or a mixture of peat and loam, where the soil will not be scorched by summer heat, its growth, and an abundance of flowers, will be secured. It is generally propagated with us by layers; but, occasionally, from seed.

Hort. Kew. 2, v. 3, 51.







Paeonia moutan

30



Sanguinaria Canadensis.

31



Cynoglossum amplexicaule

32



Narcissus tazetta

33

PÆONIA MOUTA'N. papaveracea.

POPPY-FLOWERED TREE PÆONY.

Class.
POLYANDRIA.

Order.
DIGYNIA.

Natural Order.
RANUNCULACEÆ.

Native of China.	Height. 3 feet.	Flowers in May, June.	Duration. Perennial.	Introduced in 1789.
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No. 241.

The derivation of Pæonia is from the name of Pæon, the physician, whom Homer records as having cured Pluto with this herb, when he was wounded by Heracles. Moutan is the Chinese name.

The historical particulars of this magnificent plant must, for the present, be deferred, to admit an explicit notice of a new mode of propagation.

In February, select any of the stems of the Pæonia Moutan, or all may be used, and at the distance of half an inch from the centre of each bud, both above and below it, cut out entirely round the stem, a small ring of the bark, rather more than the sixteenth of an inch wide, in the manner of common ringing, as practised on fruit trees. Thus every bud will occupy an inch of the stem, where the direct continuation of its bark is obstructed, both above and below, by the rings which have been cut out of it. The stems so prepared, are then to be laid horizontally about three inches beneath the soil, leaving only the leading bud at the end of each branch, above the surface. In six months every bud will have made a vigorous shoot, and, in general, will have two radical fibres at its base. In August, remove the soil from

above the layers, and having raised the newly made roots, carefully separate each young shoot from the main layer, by passing a small knife from one ring to the other, cutting out about one third part of the old stem. The young plants should then be immediately potted, to remain till they are required for planting out in their final situations. After thus gathering the first crop of young plants, the old layers should be again covered with good soil, and left as before; and in the following summer a second, and greater, crop of plants will be produced than in the first season; and what is most remarkable, they will issue from various parts of the stem, where no trace of a bud was previously indicated.

Again, if a stem be detached from the parent plant, and treated as described above, and then laid in soil, in a pine-pit or stove, it will shoot almost as freely as if connected with the original root.

In another experiment, cuttings of about an inch in length, were made of the *Paeonia Moutan*, in the manner of vine cuttings, having one bud on each, and about half of the stem, behind the bud, slit off, and the pith removed: these were put, three inches deep, in pots of soil, and plunged into an exhausted bark bed, having a temperature of about sixty degrees. In the space of two months, these cuttings made young shoots through the soil, and grew freely.

The above ready methods of propagating a plant, hitherto expensive, are truly valuable. They are not the results of our own experience, but we witnessed the success of part of the experiments; and can rely upon the accuracy of the whole.

SANGUINARIA CANADENSIS.

BLOODWORT.

Class.
POLYANDRIA.

Order.
MONOGYNIA.

Natural Order.
PAPAVERACEÆ.

Native of N.America.	Height. 5 inches.	Flowers in Mar.April.	Duration. Perennial.	Cultivated in 1680.
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No. 242.

Sanguinaria, from the Latin *sanguis*, blood ; is a name which may readily have been suggested by the blood-coloured juice of the plant. Some authors assert its name to have arisen from its utility in stopping hemorrhages. However its name may have arisen, it is probable that the plant was esteemed by the herbalists of old, as valuable in such maladies, on account of its blood-like juices ; for they not unfrequently determined the virtue of a herb by some fancied external indication of its uses ; thus the red beet was also pronounced good in similar disorders ; and the pulmonaria, from the resemblance of its spotted leaves to the lungs, was considered as beneficial against all affections of these organs.

The Sanguinaria Canadensis was introduced to England from the woods of Canada, whence comes its specific name. Its leaves spring forth as a curious envelope to its delicate flowers, of which there are single and double varieties ; and in groups, they form a pretty ornament amongst early flowering plants.

A light peaty soil, in a cool situation, is most suitable to it ; and it succeeds best by remaining two or three years undisturbed.



CYNOGLOSSUM OMPHALODES.

COMFREY-LEAVED HOUND'S-TONGUE.

Class.
PENTANDRIA.

Order.
MONOGYNIA.

Natural Order.
BORAGINÆ.

Native of S. Europe.	Height. 4 inches.	Flowers in Mar. April.	Duration. Perennial.	Cultivated in 1633.
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No. 243.

The term *Cynoglossum*, is compounded of the two Greek words *KUŌN*, a dog; and *GLOSSA*, a tongue; adopted from the shape of the leaves. *Omphalodes*, is also derived from the Greek *OMPHALOS*, a navel; and *EIDOS*, resemblance; which alludes to the peculiar shape of its seeds.

This genus has, by some, been divided, and the specific name of the present subject, is made the generic name of a new family, and our plant is called *Omphalodes verna*.

Circumstances, somewhat similar, seem to have occurred amongst ourselves; for we have the christian names of James, Thomas, and almost all others, used as family names. This may remind our young readers that vegetables, which have some character common to each individual, are combined in one family or genus, and the generic name may be considered as answering to our surnames; whilst each individual, in such genus, is distinguished by a trivial or specific name, as we are by christian names.

This plant with its beautiful blue little banner of spring, should deck the foot of a wall, in an eastern aspect, where it will rival the violet and primrose.

NARCIS/SUS TAZZETTA.

POLYANTHUS NARCISSUS.

<i>Class.</i>	<i>Order.</i>
HEXANDRIA.	MONOGYNIA.
	<i>Natural Order.</i>
	AMARYLLIDEÆ.

Native of Spain.	Height. 1 foot.	Flowers in Mar. April.	Duration. Perennial.	Introduced in 1759.
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No. 244.

The term Narcissus, from the Greek **NARKE**, is indicative of the stupifying effects of its smell. Tazzetta, in Italian, a little cup, alludes to the nectary. The term polyanthus, which is commonly given to this species, is compounded of the Greek **POLU**, many; and **ANTHOS**, a flower.

The odour of the Narcissus, remarked in its name, is to some persons very agreeable, whilst to others it is rather offensive; and possibly, in improper confinement, is prejudicial to all.

It is not sufficiently observed by all the admirers of flowers, that the agreeable perfume of plants, in full bloom, when diffused through close apartments, becomes decidedly deleterious, by producing headache, giddiness, and other affections of the brain. But it is in confinement alone that such effects become evident. In the garden, when mingled with a wholesome and exhilarating atmosphere, amidst objects that awaken the most delightful sensations of our nature, these sweets are a part of our gratifications, and health is promoted as a consequence of enjoyment so pure.

Who has not felt the excitement of spring? of

nature, in that delightful season, rising from lethargy into beauty and vivacity ; and spreading the sweets of the thorn and the violet, auxiliary to our gratifications ? Amidst the beauties of the flower garden, these pleasures are condensed and refined ; and the fragrance there, hovering on the wings of the breeze, cannot be imagined less wholesome than pleasant.

Whatever increases our gratifications, so peculiarly unmixed with the bad passions of human nature, must surely tend to the improvement of mankind ; and to the excitement of grateful feelings, towards that Beneficent Creator, who has so bountifully supplied these luxuries, which none are denied.

The Polyanthus Narcissus may be planted in the open borders, at any time from September to February, in a light soil, either separately or in groups ; where they will flower in great beauty. When the leaves are decayed, the bulbs should be taken up, and replanted in September, in preference to letting them remain to flower again in the same situation.

In water glasses, made for the purpose, the Polyanthus Narcissus, will flower in equal perfection with the hyacinth. The principal points requiring attention in this mode of cultivation, are these. Prefer soft water. Let it touch the bottom only of the bulb ; and by daily additions, keep it to this height. Change it entirely once a fortnight, or oftener. At each change add nitre, about the size of a small pea.

When the flowers fade, the bulbs will be strengthened by being planted in the borders, carefully extending the roots in the soil. Obtain fresh bulbs for glasses in the next season.



Tulipa Gesneriana



Asphodelus luteus.



Antennaria dioica.



Phlox diffusa.

TU'LIPA GESNERIANA.

COMMON TULIP.

<i>Class.</i>		<i>Order.</i>
<i>HEXANDRIA.</i>		MONOGYNIA.
<i>Natural Order.</i>		LILIACEÆ.
Native of Levant.	Height. 2 feet.	Flowers in Apr. May.
		Duration. Perennial.
		Cultivated in 1577.

No. 245.

As the Tulip was introduced to this country from the eastern part of the globe, it is not remarkable that it should be distinguished by a Persian name. A term somewhat similar is used in that country for a turban, and it is easy to conceive why it may have been transferred to this attractive flower. *Gesneriana* was adopted as a specific name in honour of the celebrated Conrad Gesner, who introduced the flower to notice by the publication of a figure and description of it. He had also the honour of being the first man on record that collected a museum of natural history; and whose researches formed the foundation of the present science of botany.

Gesner, though rather of weakly constitution, undertook various laborious journeys in pursuit of plants, especially on the Alps. He died at less than fifty years of age; and it is said, that when he found his end approaching, he requested to be carried into his museum, where he expired amid the monuments of his labours, thankful for what he had been able to accomplish, and supported by all the pious hopes and consolations of a christian philosopher.

The *Tulipa Gesneriana*, or garden Tulip, is the

species which has been the favourite of every florist since its first introduction to Holland and this country. A flower which the Dutch authorities passed a law to prohibit the sale of at any greater sum than four hundred pounds. It should, however, be understood that the Dutch Tulip sale, in many instances, was a mere system of gambling; a literal transfer of the flower was often not intended; the nominal possession only, or even of a share, of an INCOMPARABLE, was all that was desired by the rich Dutchman of 1635. His object was shortly to sell again at a profit, similar to the English speculator, on the Stock Exchange of our Metropolis. Time bargains were also effected; by which it was intended that the purchaser should receive or pay profit or loss agreeably to the price of the Tulip at a future time mentioned.

We notice these transactions, the more particularly, to eradicate the general impression that such extravagant prices were paid for the gratification of seeing a beautiful flower of some peculiar character ornament the possessor's garden.

Historical facts should not be overlooked, particularly as we hope to have full opportunity to do justice to the description, culture, and other matters connected with this regal flower.

We need scarcely mention that all the fine varieties of the Tulip, are known amongst florists by technical names, usually of pretty high import. The variety now figured is the Roi de Siam; and is a flower embracing some of the best qualities sought by the lover of vegetable gems. An explanation of what it is that constitutes those qualities, shall, at no distant period, be fully given.

ASPHODELUS LU'TEUS.

YELLOW KING'S-SPEAR.

Class.
HEXANDRIA.

Order.
MONOGYNIA.

Natural Order.
ASPHODELEÆ.

Native of Sieily.	Height. 3 feet.	Flowers in May, June.	Duration. Perennial.	Cultivated in 1596.
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No. 246.

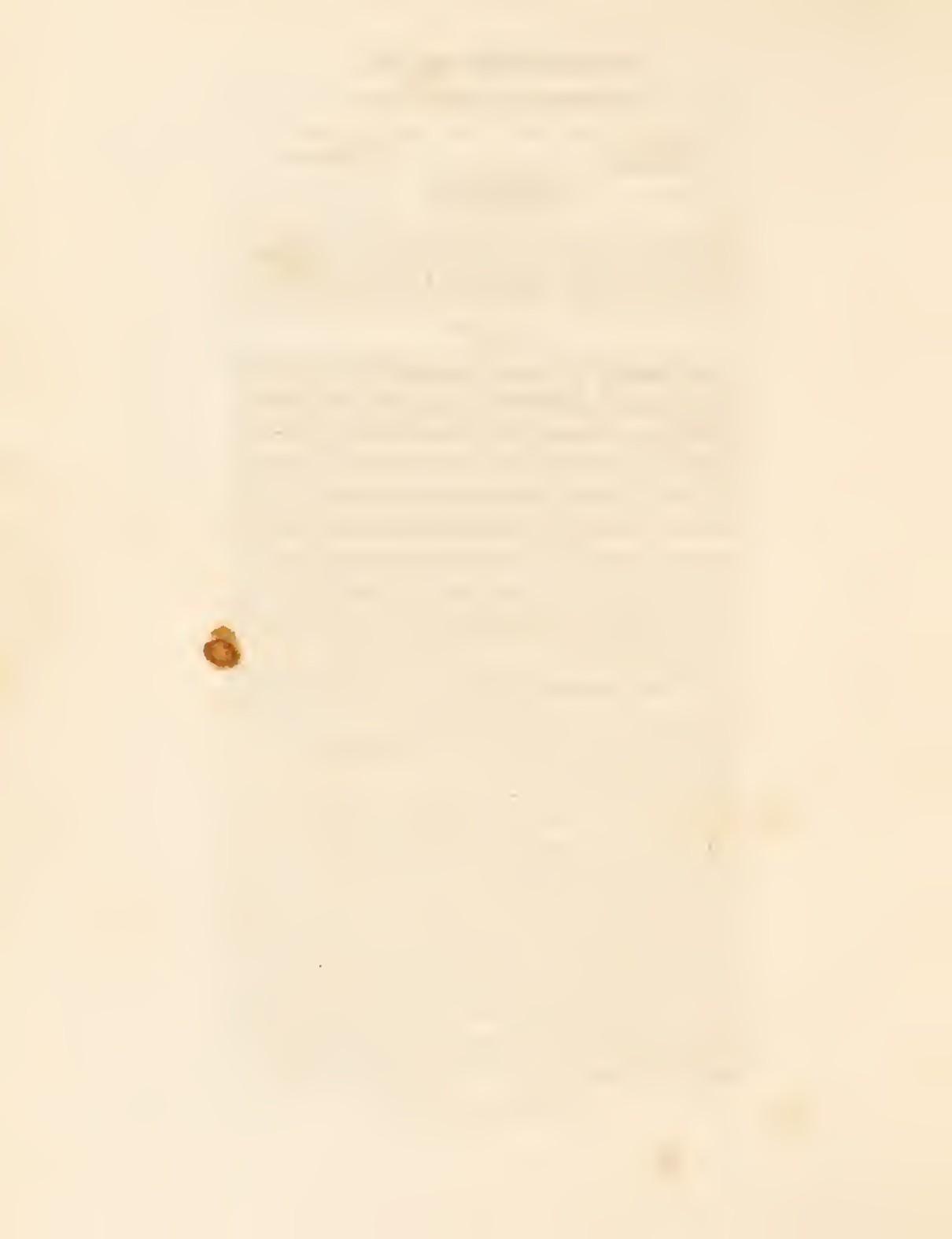
It cannot now be ascertained, with certainty, what idea the word Asphodelus was originally intended to convey. Some assert that it is derived from the Greek word **s̄p̄odos**, ashes; in consequence of the ancients having chosen the plant to decorate their graves; to mark the depository of the ashes of their friends. Others derive it from the Greek privative **α**, and **sphollo**, to supplant; to denote that it cannot be supplanted, or surpassed. Luteus, from the Latin, yellow.

The tall handsome flower stem of the Asphodel explains, at first sight, its familiar name, King's-spear. The French call this species Bâton-de-Jacob, or Jacob's Rod.

Scarcely a doubt exists respecting the identity of the ancient and modern Asphodelus. The ancients considered it an edible root, which they roasted, and ate it with salt and oil; or, according to Hesiodus, made a superior dish by beating it up with figs. It is also mentioned as having been made into bread.

It is a handsome border flower, quite hardy, and increases freely. It requires no peculiar management. The roots may be divided for increase.

Hort. Kew. 2, v. 2, 265.



ANTENNA'RIA DIOI'CA.

DIŒCIOUS ANTENNARIA.

<i>Class.</i>	<i>Order.</i>
SYNGENESIA.	POLYGAMIA SUPERFLUA.
<i>Natural Order.</i>	
CORYMBIFERÆ.	

Native of Britain.	Height.	Flowers in	Duration.	Inhabits
	4 inches.	May, June.	Perennial.	dry hills.

No. 247.

The name of this genus, *Antennaria*, is deduced from antennæ, in allusion to its capillary seed-down, which bears a resemblance to the antennæ or feelers of an insect. The specific term *Dioica*, is intended to mark the diœcious character of its flowers; those of one plant having their anthers most perfect, whilst those of another are most perfect in their pistils.

This remarkably pretty British plant has long been known as the *Gnaphalium dioicum*, but is now, with several other species, separated from that genus, and one of the characteristics of the new genus, *antennaria*, is its having diœcious florets.

It has borne many familiar appellations, as cud-weed, cotton-weed, everlasting; and the fancy of the old authors added a name of more graceless character to one of their cudweeds; which was *herba impia*, or impious herb; because, as Gerarde says, ‘The yonger, or those floures that spring vp later, are higher, and ouertop those that come first, as many wicked children do vnto their parents.’

This plant will flourish in an exposed eastern situation, in a dry and rather light soil. May be increased by separation in the spring.

PHLOX SUBULATA.

AWL-LEAVED PHLOX.

<i>Class.</i>	<i>Order.</i>
PENTANDRIA.	MONOGYNIA.
<i>Natural Order.</i>	
POLEMONIACEÆ.	

Native of N. America	Height, 3 inches.	Flowers in May, June.	Duration. Perennial.	Introduced in 1786.
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No. 248.

The word Phlox, as previously noticed, is of Greek origin, and though not first applied to this genus, still, if flame, which it signifies, be metaphorically used for splendid or beautiful, it may very justly be claimed by the present attractive family of plants. The Latin subulata, belonging to an awl, has been chosen to distinguish the species, in allusion to the shape of its leaves.

This delightful little plant is by no means uncommon, and in a tolerably dry and warm situation, few of like size can exhibit so exqnisite a display of beauty. Its trailing stems of foliage spread luxuriantly on the soil, and form a carpet of mingled green, on which its flowers glow with a delicacy unattainable by art. Some admirers of the Phlox subulata, support its branches on little frames, that its blossoms might be somewhat elevated; but this destroys its natural character, and lessens the interest excited by the beauty of a plant so humble.

It grows freely in almost any soil, but particlnarly in a mixture of peat and light loam. The trailing stems strike root, and may be separated for increase; or cuttings may be struck in a hotbed.





Rosa centifolia.



Muscari comosum.



Arphodelus paniculatus



Loasa nemanthifolia.

RO'SA CENTIFO'LIA. var. *Dianthiflora*.

THE OEILLET, OR PINK-FLOWERED, ROSE.

Class.
ICOSANDRIA.

Order.
POLYGYNIA.

Natural Order.
ROSACEÆ.

Native of S. Europe.	Height. 3 feet.	Flowers in June, July.	Duration. Perennial.	Introduced in 1816.
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No. 249.

The name of our present subject, Rosa, a word rendered interesting by its association with one of the most generally attractive objects in the vegetable creation, is deduced from the ancient Celtic name; and has been received, with some variation, into every language of Europe. Our own word, Rose, came from it, probably, through the Americans, with whom the inhabitants of Britain, after their subjection by the Saxons, were much connected, on account of their migration to Armorica as a place of refuge. Centifolia, signifying hundred-leaved, from its numerous petals, is applied to a species which includes many varieties, amongst which very few are more deserving of attention than the one we now introduce to our readers. Varieties of the Centifolia are known to most persons; amongst others, the Provins and the Moss; which have also subvarieties, each with its respective cognomen.

The propagation of Roses has been much attended to of late years, particularly by the French; and the list of named sorts, in the nursery catalogues, now extends to upwards of one thousand. What is necessary to constitute a distinct SORT, may be difficult

to define. The florist, in his distinctions, frequently displays considerable acumen. He cannot, however, be expected, willingly, to lose a chance of registering evidence of his care, by giving a name to every new variety that he originates, even if they be as like as Shakspeare's brothers *Antipholus*. To the zealous propagator, as is beautifully observed in the Journal of a Naturalist, “ A streak, a tint, a shade, becomes his triumph, which, though often obtained by chance, are secured alone by morning care, by evening caution, and the vigilance of days.”

This pretty flower was originally raised from seed in France, and is called the *Oeillet Rose*. *Oeillet* being the French name of the pink, the terms *dianthiflora*, and *pink-flowered*, are mere translations of it. *Pink-flowered Rose*, in our language, is not a happy combination of words ; but it must be remembered, that it was not so called in allusion to colour, but on account of the numerous narrow cut petals of its flower, which character, together with the beautiful arrangement of stamens in its centre, combine to distinguish it from all others.

The growth of the *Oeillet Rose* is neither strong nor tall, from two to three feet being its greatest height. It produces suckers pretty freely, which may be taken off immediately on the fall of the leaf, a period generally esteemed preferable to later in the winter. Layers of the low branches being made in autumn, may be divided in the following autumn. Chinese Roses may be readily raised from cuttings, but we know of no certain method of propagating the *centifolia* and similar species by such means. We shall be happy to receive instruction from any of our readers.

MUSCA'RI COMO'SUM.

TASSELLED GRAPE-HYACINTH.

<i>Class.</i>	<i>Order.</i>
HEXANDRIA.	MONOGYNIA.
<i>Natural Order.</i>	
ASPHODELEÆ.	
Native of S. Europe.	Height. 6 inches.
	Flowers in April, May.
	Duration. Perennial.
	Cultivated in 1596.

No. 250.

Muscaria may be considered as immediately derived from moschus, musk; in allusion to its scent; the Greek *MOSCOS*, being its original. The name moschus, retained to distinguish that peculiar and powerfully scented production, is the systematic name of the animal from which it is obtained; a ruminating quadruped, somewhat like an antelope.

Gerarde calls the plant the fair-haired Jacinth, which name, as well as our specific term, was given in allusion to its tuft of terminating filaments.

This subject has been previously alluded to as the parent of the Feathered Grape-Hyacinth, and the monstrosity so prominent in the offspring, may be traced in the tasselled unprolific head of the parent. The certainty of this connexion cannot, however, be insisted on, since their distinct existence carries our inquiry back into the obscurity of ancient simplers.

Within the bulb of this plant, as in the tulip, the flower will be found, in the winter, in a very perfect state. In January, its little cænpanulate corollas are tipped with blue, which, under the microscope, may be opened, and the parts of fructification clearly discovered. Cultivation simple.

Hort. Kew. 2, v. 2, 283.



ASPHO'DELUS RAMOSUS.

BRANCHED KINGSPEAR.

<i>Class.</i>	<i>Order.</i>
HEXANDRIA.	MONOGYNIA.
<i>Natural Order.</i>	
ASPHODELEEÆ.	

Native of S. Europe.	Height. 4 feet.	Flowers in May.	Duration. Perennial.	Cultivated in 1596.
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No. 251.

In addition to our notice under No. 246, it may be added, that the term *Asphodelus* has, by some writers, been thought to have come from the Greek **ASPIS**, a serpent; and **DEILOS**, fearful; because the venom of serpents was supposed to be destroyed by the *Asphodelus*. The Latin *ramosus*, branched, is not universally applicable to this species; as some plants produce very few branches.

By the French this species is called *Bâton royal*, or King's Rod, and it deserves this distinction of our Gallic neighbours; its delicate flowers being borne on an upright stately stem, produce a beautiful effect in the mingled flower border; and continue in gaiety a month at the least.

It increases but slowly, and should not be transplanted oftener than convenience really requires; for we have never seen it blossom in the first season subsequent to a removal. The roots may be occasionally divided, or it may be raised from seeds, which, being sown in the autumn, will vegetate in the spring, but the young plants will not produce flowers until three or four years old. It grows freely in any common soil.



LOA'SA ACANTHIFO'LIA.

ACANTHUS-LEAVED LOASA.

Class.	Order.
POLYADELPHIA.	POLYANDRIA.

Natural Order.
LOASEÆ.

Native of Chile.	Height. 6 inches.	Flowers in June, Sept.	Duration. Annual.	Introduced in 1822.
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No. 252.

The name Loasa, was instituted by Adanson in honour of a Spanish botanist. This is the Loasa Placei of some of the modern catalogues ; but having been published under the specific name, acanthifolia, this name is better known.

It may be presumed that Adanson did not choose his title because any likeness could be traced between the plants of this genus and the individual after whom he named it, or some of its qualities would resound but little to the praise of Don Loasa. Their flowers are extremely curious, and the botanist will have gratification in giving place to a plant or two of it amongst his annuals ; but in addition to a curious flower, it carries a most virulent sting.

Our common nettle is inoffensive in comparison with the Laosa acanthifolia. The sting of the nettle has a local action, of short duration only ; but a puncture by the Loasa acanthifolia, on the wrist, we have known to be felt from that joint to the elbow during the subsequent week.

The young plants should be raised in the spring, with the assistance of a slight hotbed ; and when removed, should be carefully protected from slugs.





Dianthus plumarius.



Alyssum saxatile.



Polygonatum multiflorum.



Daphne cneorum.

DIAN'THUS PLUMA'RIUS.

FEATHERED PINK.

Class.
DECANDRIA.

Order.
DIGYNIA.

Natural Order.
CARYOPHYLLEÆ.

Native of Europe.	Height. 1 foot.	Flowers in June, Aug.	Duration. Perennial.	Cultivated in 1629.
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No. 253.

The Greek words **DIOS**, **ANTHOS**, are compounded to form Dianthus, signifying Jove's Flower, or the Flower of the Gods. Plumarius, from the Latin *pluma*, a feather; used to distinguish this species, on account of its feathered formation.

Pinks are sometimes increased by layers, but the facility of propagation by pipings has nearly superseded the practice of laying them.

The proper season in which to take pipings, as considered by florists, is the latter part of the month of June; and this season possesses the two principal advantages sought, that of the branches being in a proper state of growth, and of affording time for the young plants to become well rooted before winter. In case of necessity, however, pipings may be taken much later in the summer, but if after July, it will be prudent to put them in pots under a bell-glass, that if they be not rooted before cold weather commences, they may be removed to a greenhouse, or to the window of a sitting room, during the winter, watering them very sparingly, and retaining the bell-glasses over them, till they begin to grow.

To insure the most certain and speedy growth of

pipings, a gentle hotbed may be used, but if this be not convenient, choose a rather cool situation, and lay thereon a rich light compost, three or four inches deep; prepare it to receive a hand-glass, and give it a gentle watering, an hour at least before it be made use of. Then take a branch of the pink, and immediately below the second or third joint from the top, cut it off, and the piping will be readily disengaged from the bottom of the two leaves which form a sheath round it, leaving it clear as in the annexed cut. The leaves may be shortened, as represented, for convenience, otherwise in itself the operation is unimportant. Some cultivators slit the bottom of the piping, as shown in our figure, but the propriety of this practice is somewhat questionable, for the tender part of the piping is liable to be bruised, and we think the same advantage is not obtained by it as in the common cuttings of other plants. Thus prepared, the pipings should be planted about half an inch deep in the place prepared for them, be gently watered, and when their tops are become dry, the hand-glass should be placed closely over them, to preclude, as much as possible, the admission of fresh air. Keep the soil moderately moist; remove the hand-glass for the space of ten minutes, daily, to give the pipings air, shading them during the removal, if exposed to the rays of the sun; and at the same time, turning the hand-glass bottom upwards that its interior may be dried. When the pipings begin to grow, air should be admitted under one side of the glass, to inure them gradually to the atmosphere, and shortly after this they will be fit for transplanting.



ALYS'SUM SAXA'TILE.

ROCK MADWORT.

<i>Class.</i>	<i>Order.</i>
TETRADYNAZIA.	SILICULOSA.
<i>Natural Order.</i>	
CRUCIFERÆ.	

Native of Candia.	Height. 1 foot.	Flowers in April, May.	Duration. Perennial.	Introduced in 1710.
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No. 254.

The term Alyssum, is deduced from the Greek **α**, which produces a negative or contrary meaning; and **LUSSA**, madness; the plant **ALUSSON**, of the Greeks, having been imagined to yield an antidote to such state of mind. Saxatile, from the Latin, in allusion to its inhabiting rocky places.

This is a particularly showy plant, and though not usually more than a foot in height, its branches spread, and generally much exceed that length, on account of the trailing position that they assume near the root.

It yields a profusion of flowers of the most brilliant golden hue, which continue in gaiety nearly three weeks; and in autumn it is not unusual for it again to assume its vernal beauty; indeed, by shortening the branches, one or two at a time, at intervals of a month, beginning in March, a partial flowering may be produced through the whole of the summer.

It does not afford a convenience of division at the root; but may, without difficulty, be increased by slips or cuttings. These should be struck under a hand-glass in May or June.



POLYGONA'TUM MULTIFLO'RUM.

MANY-FLOWERED SOLOMON'S SEAL.

Class.
HEXANDRIA.

Order.
MONOGYNIA.

Natural Order.
SMILACEÆ.

Native of Britain.	Height. 2 feet.	Flowers in May, June.	Duration. Perennial.	Native of Woods.
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No. 255.

The Greek word **POLUS**, signifying many ; and **GONU**, a knee or joint ; are here compounded to form an appellation indicating a plant with numerous joints or articulations.

The common name, Solomon's Seal, arose out of a fancy that the root, when cut transversely, represented the impression of a seal ; or, which is far more probable, from the reputed virtue of the root in sealing or healing up wounds.

The genus **Convallaria**, as framed by Linneus, has lately been divided, and its species given principally to **Polygonatum** and **Smilacina**, leaving the **Lily of the Valley** sole occupant of the original title.

It is a plant admirably adapted to the filling up a damp and shady corner, where but few others will thrive. Its virtues, also, should not be lost sight of. Gerarde writes, not very gallantly, that the bruised roots take away “blacke or blew spots gotten by fals, or women’s wilfulness in stumbling vpon their hastic husbands’ fists, or such like.”

It merely requires planting in a shady situation ; and for increase, the roots may be divided in spring or autumn.



DAPH'NE CNEO'RUM.

TRAILING DAPHNE.

Class.
OCTANDRIA.

Order.
DIGYNIA.

Natural Order.
THYMELÆÆ.

Native of Austria.	Height. 9 inches.	Flowers in April, May.	Duration. Perennial.	Introduced in 1739.
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No. 256.

The Heathen Mythology frequently lends its aid to the vocabulary of botanists, and it has been said to do so in the name of our present genus; but if research be made somewhat farther, it will probably appear that the fabled virgin's name, Daphne, originated with the vegetable; the term being applied as the Greek name of the Laurel, which it is likely was used before the present machinery of the Heathen Mythology existed. The word Daphne seems to have arisen out of the Greek word PHONEO, to call; in consequence of the noise made by its leaves when burnt; and the Laurel, was, from its never-fading brilliance, chosen as a type of virgin modesty, and its name likewise adopted in its fabulous personification. Cneorum was used by the old Greek authors, the derivation of which is unknown.

The Daphne cneorum is a most charming little trailing shrub, which every lover of such choice gifts will certainly make an associate. In itself it is unobtrusive and always in verdure; its flowers are beautiful, and yield a most delightful perfume.

It should be planted wholly, or in part, in vegetable mould, and should never be unnecessarily removed.

Nor should it be pruned, on account of its young shoots issuing only from the points of each branch, unless it be to take out decayed parts. The flowers are apparently terminal, but not completely so. They sit on the ends of the branches like a kind foster-mother, and before they leave, and are no more seen, the infant shoots will be sent from their bosom, as though nursed in the sweets of Flora's lap alone, they could be perfected and given to the light of the sun.

It is thought to be difficult of culture, but this is far from the fact. It delights in a partial shade, on a rather cool bottom, though we have seen it in luxuriance at the foot of a dry south-east wall. All attempts to thwart its natural habit, by supporting the branches off the earth, will only produce disappointment. The grand secret of keeping it in health, chiefly consists in the annual laying of its branches, as they continue to spread. Early in every autumn a little of the soil should be taken from beneath the last year's shoots; then having partly supplied its place with some finely pulverized sandy peat, or in the absence of this, some well-decayed leaves which have been well broken and sifted, the branches should be fastened closely down with hooked sticks, and afterwards more of the same compost should be laid over the branches, an inch or two in depth, leaving not more than two inches of the end of each shoot above the soil. Thus regularly treated, the *Daphne cneorum* will luxuriate and spread in every direction; and in spring will exhibit its beauty, emblazoning the earth, and surpassing every shrub of similar habit or magnitude that may rival its claim to admiration.



Commelinia tuberosa



Pentstemon digitalis



Tolpis barbata.



Matthiola annua.

COMMELINA TUBERO'SA.

TUBEROUS-ROOTED COMMELINA.

Class.	Order.
TRIANDRIA.	MONOGYNIA.
<i>Natural Order.</i>	
COMMELINEÆ.	

Native of Mexico.	Height. 1 foot.	Flowers in June, Aug.	Duration. Perennial.	Cultivated in 1732.
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No. 257.

This generic name was established by Plumier, in honour of the Dutch botanists, named Commelin. The specific name, *tuberosa*, alludes to its tuberous roots, which resemble those of the *ranunculus*.

The *Commelina tuberosa* is, strictly, a stove plant; and, at first sight, it may appear to be out of place amongst our hardy subjects of the open parterre. It is, however, well suited to common culture, and its beauty claims our admiration.

The treatment suitable to it is similar to that of the *Dahlia*, merely requiring that its roots be taken up in the autumn, before they have sustained any injury from frost, and deposited in a bed or box of sand, in a dry cellar, safe from the severity of winter.

In April, they may be planted in the borders, where they are intended to flower; or if they are put into pots, two or three weeks earlier, and given the advantage of a hotbed or greenhouse, till the beginning of May, they may then be turned into the open ground. If seed be sown in March, and forwarded by a little artificial heat, the young plants may be put out in June, and they will flower very brilliantly in the autumn.

THE HISTORY OF THE CHURCH

BY J. H. BREASTED, PH.D., PROFESSOR OF ANCIENT HISTORY IN THE UNIVERSITY OF CHICAGO.

WITH A HISTORY OF THE CHURCH IN AMERICA BY J. H. BREASTED.

ILLUSTRATED WITH 1000 PLATES AND MAPS.

IN FIVE VOLUMES. VOL. I. THE OLD TESTAMENT.

IN FIVE VOLUMES. VOL. II. THE NEW TESTAMENT.

IN FIVE VOLUMES. VOL. III. THE CHURCH IN THE AGE OF THE PATRIOTS.

IN FIVE VOLUMES. VOL. IV. THE CHURCH IN THE AGE OF REFORMERS.

IN FIVE VOLUMES. VOL. V. THE CHURCH IN THE AGE OF REVIVALISTS.

IN FIVE VOLUMES. VOL. VI. THE CHURCH IN THE AGE OF LIBERTY.

IN FIVE VOLUMES. VOL. VII. THE CHURCH IN THE AGE OF PROGRESS.

IN FIVE VOLUMES. VOL. VIII. THE CHURCH IN THE AGE OF REVIVALISTS.

IN FIVE VOLUMES. VOL. IX. THE CHURCH IN THE AGE OF REVIVALISTS.

IN FIVE VOLUMES. VOL. X. THE CHURCH IN THE AGE OF REVIVALISTS.

IN FIVE VOLUMES. VOL. XI. THE CHURCH IN THE AGE OF REVIVALISTS.

IN FIVE VOLUMES. VOL. XII. THE CHURCH IN THE AGE OF REVIVALISTS.

IN FIVE VOLUMES. VOL. XIII. THE CHURCH IN THE AGE OF REVIVALISTS.

IN FIVE VOLUMES. VOL. XIV. THE CHURCH IN THE AGE OF REVIVALISTS.

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IN FIVE VOLUMES. VOL. XVIX. THE CHURCH IN THE AGE OF REVIVALISTS.

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IN FIVE VOLUMES. VOL. XXVI. THE CHURCH IN THE AGE OF REVIVALISTS.

IN FIVE VOLUMES. VOL. XXVII. THE CHURCH IN THE AGE OF REVIVALISTS.

IN FIVE VOLUMES. VOL. XXVIII. THE CHURCH IN THE AGE OF REVIVALISTS.

PENTSTEMON DIGITALIS.

FOXGLOVE-FLOWERED PENTSTEMON.

<i>Class.</i>	<i>Order.</i>
DIDYNAMIA.	ANGIOSPERMIA.

<i>Natural Order.</i>	
SCROPHULARINÆ.	

Native of	Height.	Flowers in	Duration.	Introduced
N. Ameria.	2½ feet.	July, Aug.	Perennial.	in 1824.

No. 258.

Pentstemon, which is compounded of two Greek words, **PENTE**, five, and **STEMA**, a stamen ; is used to distinguish a genus which has been separated from Chelone ; because, in addition to the four unequal stamens of Chelone, which characterize the class didynamia, it possesses an imperfect fifth stamen. Digitalis, the systematic name of the Fox-glove, is given as a secondary title, from the resemblance of their flowers.

Some difference of opinion has prevailed respecting the propriety of dividing the genus Chelone ; and it must be acknowledged there appears no real necessity for doing so.

This handsome upright growing plant, from Arkansas, in North America, is a desirable addition to a collection of herbaceous beauties, it being unobtrusive in proportion to its height ; and if some of its stems be cut down before it has quite done flowering, a second crop will in general be produced.

It may be increased by division of its roots ; and if this be insufficient, cuttings may be taken of its stems, about midsummer, which will strike root under a hand-glass.

TOLPIS BARBATA.

YELLOW HAWKWEED.

<i>Class.</i>	<i>Order.</i>			
SYNGENESIA.	POLYGAMIA EQUALIS.			
<i>Natural Order.</i>				
COMPOSITÆ.				
Native of S. Europe.	Height. 2 feet.	Flowers in June, July.	Duration. Annual.	Cultivated in 1620.

No. 259.

Of the word Tolpis, we believe no one has been able to trace any derivation whatever. It was first used by Adanson, who is supposed to have invented it. He, probably, thought it better to do so than to compound Greek words, and hazard criticism. Barba-ta, from the Latin, bearded.

The term Hawkweed, by which this plant has been so long familiar, is the translation of a Greek name, borne by plants of the same natural family. It was adopted in reference to their supposed virtues in giving a sharp-sightedness, equal to the hawks; or that, as an old author intimates, the hawk sharpened his sight by it. This idea would be readily suggested by the rules which guided the ancients in judging of the virtues of plants; the flower, with its dark centre and brilliant ray, resembling a bright eye.

This is a free-growing slender annual, which requires support, or it will spread about, to the annoyance of its neighbours. Its flowers are very pretty, and our esteem for them will increase by minute examination.

It is merely requisite to sow seeds, early in April, in the open ground.

MATHIOLA ANNUA.

TEN-WEEK STOCK.

Class.	Order.
TETRADYNAMEIA.	SILIQUOSA.

Natural Order.
CRUCIFERÆ.

Native of S. Europe.	Height. 18 inches.	Flowers in June, Oct.	Duration. Annual.
			Introduced in 1731.

No. 260.

The name, *Mathiola*, was adopted after that of Peter *Mathiola*, an Italian physician. *Annuæ*, from the Latin, denoting its duration as annual only.

Very few plants have been so diversified in their varieties, as the Ten-week Stock. Every gradation of colour, through all the shades of pink and purple, to a white, have been produced ; and even imperfect tints of brown have appeared, mingled with its more legitimate hues.

Seeds of the most beautiful varieties of Stocks are imported from Germany ; where, it is said, by consent, or some municipal regulation, only one variety or colour is allowed to be grown in each village, and thus their shades are kept distinct. They are mostly packed in sets or collections, each consisting of about forty sorts, labelled according to colour.

In raising Ten-week Stocks, more care is required than is always practised ; and there are but few persons who have regularly cultivated this flower, particularly by the aid of artificial heat, but have experienced disappointment, by seeing their young seedlings, when two or three weeks old, die away, plant by plant, till a very slender crop has remained.

There are four principal causes which we have observed, as tending to the destruction of very young seedling stocks, by occasioning them to decay at the surface of the soil ;—too much moisture ; too much heat ; the plants being crowded ; and incautious watering. The first occurs when seeds are sown in pots, and meets a remedy by regular, but moderate watering ; and also an assistant remedy, by half filling the pot with stones or gravel, before the mould be put into it. Too much heat is often given to seedlings, when raised in a hotbed or greenhouse ; and the plants become spiring and weakly, in lieu of being short stemmed and strong. The remedy is evident : as soon as the young plants appear, they should have plenty of air, and the pots should be raised as near to the glass as possible. If plants are crowded, they should not be suffered to continue so, after they are from half an inch to an inch high ; but be pricked out into pots, or a bed. If this be done earlier than the middle of April they will then require a little night protection. As regards watering, they are often beat down, and bruised at the surface of the soil, by a heavy flow of water from the watering pan. A little attention to these rules will, we hope, prevent all disappointment.

If, to produce early flowers, seed be sown before April, it should have the assistance of a hotbed, or other protection ; afterwards, this is unnecessary.

Entire beds of stocks, of various tints, yield a mass of gaiety and beauty that is very pleasing, in proper situations ; but, in general, in clusters of four or five plants each, of one colour, distributed over the flower compartment, they will be most gratifying.



Azalia Pontica.



Fumaria Halieri.



Iris pumila.



Saxifraga granulata

AZALEA PONTICA.

YELLOW, OR PONTIC AZALEA.

Class.

PENTANDRIA.

Order.

MONOGYNIA.

Natural Order.

RHODORACEÆ.

Native of Turkey.	Height. 4 feet.	Flowers in May.	Duration. Perennial.	Introduced in 1793.
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No. 261.

The term Azalea is derived from the Greek word *AZALEOS*, signifying dry, or arid, in allusion to the native situation of the plant; but it is not very correctly applied to this genus. Ponticus, from Pontus, where this shrub is indigenous.

It has long been supposed that the distinction, which is manifested by the Linnean system, between the Azalea and Rhododendron, must ultimately yield to natural laws; and that these two genera would be found to coalesce. Experience has proved that they should really form but one genus.

As very many hybrid or mule plants have been raised from seed, which partake of characters belonging in part to the Azalea, and in part to the Rhododendron, from which they originated, conclusive evidence is afforded that the Linnean system of determining classes, by the number of stamens, is not infallible as a law of nature. This may be considered one of the cases strongly favouring the views set forth in what is called the natural system of arrangement, which builds its distinctions on the consideration of several parts of the vegetable; but this arrangement is not without its defects.

The study of the Linnean system is short and easy; that of the Jussieuan, and those subsequently built on it, more lengthened and intricate. Knowledge is certainly imparted by its circuitous rout; yet considering how many turn, with alarm, from the threshold of the most simple method, we regret any increase of these fears. The natural arrangement offers many important advantages, but let us remember, with due praise to its promoters, that these can be embraced when the Linnean is acquired.

Numberless varieties, between the Azalea and Rhododendron, may hereafter be raised. We hope that many of our readers will give their exertions to the increase of these beautiful shrubs. It is most readily effected; being merely the removal of the anthers, from the flowers of one plant, soon after it has opened, and bringing to the style of that flower, the pollen of another species. From the seed produced by a flower, thus artificially impregnated, will spring hybrid plants, partaking of the characters of each of the two species employed.

Choice will, of course, be made of those Azaleas or Rhododendrons which are known to perfect their seeds; and the two flowers experimented on, should be such as have opened on the same day. The destruction of the one set of anthers must be effected as early as possible; and those to be made use of should be taken when they are beginning to burst and discharge their pollen or farina. A little observation of the economy of nature, in the fructification of vegetables, will enable any one to act with a great degree of certainty as to the result. Remarks on cultivation will be given at a future opportunity.

FUMA'RIA HALLE'RI.

HALLER'S FUMITORY.

Class.
DIADEPHIA.

Order.
HEXANDRIA.

Natural Order.
FUMARIACEÆ.

Native of Europe.	Height. 6 inches.	Flowers in April.	Duration. Perennial.	Cultivated in 1596.
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No. 262.

The Latin term *fumus*, smoke, doubtless gave rise to the present generic name, but why applied, is not so certain. The scent of the plant, it is thought, may have occasioned its adoption, but in this particular we believe that not one species of *Fumaria* possesses any peculiarity. Halleri, we presume, is used in honour of Haller, the celebrated anatomist and botanist, appointed professor at Göttingen, by George the second.

By the arrangement of De Candolle, this species, and also *Fumaria lutea*, and *Fumaria nobilis*, previously published in this work, are separated from the Linnean genus *Fumaria*, and placed with others under *Corydalis*. This latter generic distinction has been but partially adopted, whilst *Fumaria Halleri*, or its synonymous name, *Fumaria bulbosa*, are universally familiar.

This, like other species of *Fumaria*, is desirable on account of its flourishing in shady places, where many plants barely exist, or wholly die.

It may be divided for increase; or raised from seeds, which are sometimes produced. These should be sown in autumn, and have a little winter protection.



IRIS PU'MILA.

DWARF IRIS.

Class.
TRIANDRIA.

Order.
MONOGYNIA.

Natural Order.
IRIDEÆ.

Native of Austria.	Height, 6 inches.	Flowers in April, May.	Duration. Perennial.	Cultivated in 1596.
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No. 263.

Both the Greeks and Latins have the word Iris, a rainbow; and used it to distinguish some of the same tribe of plants to which it is now applied. Pumila, from the Latin, dwarf.

This pretty species of Iris is now less frequently met with than it appears to have been a century or two ago. It was then noticed as plentiful, and combined several varieties, which occurred with flowers of different colours, as blush, pale blue, straw-coloured, variable yellow, white, and others; but, we believe, any of these are now rarely seen. The same was observed by Mr. Curtis, forty years ago; and he conceived that gardeners, formerly, not having to attend to the profusion of plants that have been subsequently introduced into cultivation, were more solicitous about the increase of seedling varieties of such as they did possess, which was very probably correct.

There are upwards of fifty distinct species of Iris now in cultivation; the whole of them beautiful; and they are also highly desirable, from the little care they demand. An eastern aspect, and rather light soil, suits this and most others of the genus.

THE PRACTICAL STUDY OF INTERPERSONAL COMMUNICATION

JOHN W. BURGESS

I present here a study that attempts to meet two needs of communication theory. First, it attempts to show how communication theory can be applied to practical problems of communication. Second, it attempts to show how communication theory can be applied to practical problems of communication research. The first need is met by showing how communication theory can be applied to the problem of communication between two people who are in different situations. The second need is met by showing how communication theory can be applied to the problem of communication between two people who are in the same situation. The two needs are met by showing how communication theory can be applied to the problem of communication between two people who are in different situations and by showing how communication theory can be applied to the problem of communication between two people who are in the same situation.

SAXIFRA'GA GRANULATA. flore pleno.

DOUBLE GRAIN-ROOTED SAXIFRAGE.

<i>Class.</i>	<i>Order.</i>
DECANDRIA.	DIGYNIA.

<i>Natural Order.</i>	<i>SAXIFRAGEÆ.</i>
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Native of Britain.	Height. 1 foot.	Flowers in April, June.	Duration. Perennial.	Inhabits Meadows.
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No. 264.

The word *Saxifraga*, from the Latin *saxum*, a stone; and *frango*, to break; is said to have been given, originally, to some plant on account of its real or supposed medicinal qualities. Some have thought that as the little granulated roots were not unlike small stones, the old herbalists looked on this peculiarity as an indication that the plant was a remedy for calculous concretions of the kidneys. Though this was amongst their methods of reasoning, there is no evidence to show that our plant was one which originally bore the appellation. *Granulata*, from the Latin *granum*, a grain; in reference to its small numerous grain-like roots.

The single flowered *Saxifraga granulata* is very frequent in various parts of England, particularly in the midland counties; but the double flowering variety is only met with in gardens, where it forms a neat little tuft of foliage, whence rise its stems, bearing a pretty display of delicate flowers.

It will grow in almost any soil or situation, and is very suitable for ornamenting artificial rock work. It may be divided at any time of the year, if frequently watered, till it has taken root.





Astragalus alopecuroides.



Erica vulgaris.



Helianthemum roseum.



Saxifraga cerasophylla.

ASTRAGALUS ALOPECUROI'DES.

FOX-TAIL-LIKE MILK VETCH.

Class.
DIADELPHIA.

Order.
DECANDRIA.

Natural Order.
LEGUMINOSÆ.

Native of Spain.	Height. 2 feet.	Flowers in June, July.	Duration, Perennial.	Introduced in 1737.
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No. 265.

It is now difficult to determine why the Greek word **ASTRAGALOS**, which has several interpretations, was used as the name of a plant. It signifies a die, also a bone of the foot, and sometimes the vertebræ; and a resemblance has been supposed to exist between some of these and the fruit of the vegetable. **Alopecuroides**, from the Greek **ALOPEX**, a fox; **OURA**, a tail; **EIDOS**, a likeness. This compound term alludes to its tuft of woolly calyxes.

The flower of this plant, though the nursling of a downy bed, is not very attractive; but it amply requites us by the elegance of its foliage. Composed of from twenty to thirty pairs of leaflets, gradually diminishing towards their apex, and gracefully displayed from the flowering stem, its leaves yield in beauty to none that we know. Studded, as the brilliant dew-drops of the morning often leaves them, they assume the aspect of a regal plumage, gimbled to brightness by glittering diamonds.

This **Astragalus** is readily raised from seed; which should be sown in March. In the following September the young plants should be carefully removed to their final situation.

We here represent the double-flowered variety; but whether we examine the double or single, purple or white, it still has attractions; but they are observed in the highest degree in its native situation. Here it is seen, spread on the mountains, in the wildest luxuriance; a far-stretched breadth of purple flowers, relieved alone by the slight intermixture of its delicate foliage. Who amongst us ever threaded the maze of a sheep-beaten track, to reach the summit of a heath-flowered mountain, without the deepest impression of its grandeur in the expanse, of its beauty in detail.

In Dr. Withering's Arrangement of British Plants, the new edition of which has a great accession of popular and interesting matter, it is noticed, that the poor inhabitants of the Highlands of Scotland, construct the walls of their cottages with alternate layers of this plant, and a mortar made of black earth and straw; the woody roots being placed in the centre, the tops externally and internally. Their cottages are also thatched with it; and their beds made of it.

Woollen cloth may be died an orange colour, by being first boiled in alum, and afterwards in a strong decoction of the tops of Ling; and it also produces a suitable liquor for the purposes of the tanner.

Our present plant demands the usual mode of culture which is generally applicable to Heaths. The most momentous part of this is, that they be planted in peat; after this, pure air, and protection against excessive drought in summer, are important considerations. If the lower branches be fastened down, beneath the soil, they will strike root.

HELIANTHEMUM ROSEUM.

ROSE-COLOURED SUN-ROSE.

<i>Class.</i>				<i>Order.</i>			
POLYANDRIA.				MONOGYNIA.			
<i>Natural Order.</i>							
CISTINÆ.							

Native of S. Europe.	Height. 6 inches.	Flowers in June, July.	Duration. Perennial.	Cultivated in 1820.
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No. 267.

Helianthemum is deduced from two Greek words, **HELIOS**, the sun; and **ANTHOS**, a flower; from its brilliancy, and the colour of many of its species.

This is a charming tribe of little trailing plants, of which a great number of varieties have lately been introduced into our gardens. Double and single flowers occur, of various shades of pink and yellow, and intermediate tints. Though their flowers are of short duration, still the daily succession of them produces the gaiety which is sought in the flower garden.

The small ligneous stems of the Helianthemum roseum spread freely; and, unless it be in very moist situations, endures the most severe frost.

It may be increased, with ease, from cuttings of the young shoots, which will be found sufficiently long to take off in June. These should be planted in a cool situation, and have a bell-glass, or hand-glass, placed over them, which, by the retention of a moist atmosphere, facilitates their rooting.

Planted in a southern aspect, on the side of a mount, it will succeed admirably, and be shown to the greatest advantage.

SAXIFRA'GA CERATOPHYL'LA.

SHINING-CALYXED SAXIFRAGE.

Class.
DECANDRIA.

Order.
DIGYNIA.

Natural Order.
SAXIFRAGEÆ.

Native of Spain.	Height. 6 inches.	Flowers in June.	Duration. Perennial.	Introduced in 1804.
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No. 268.

The origin of the word *Saxifraga* is noticed at No. 264. *Ceratophylla*, is derived from the Greek **KERAS**, a horn; and **PHULLON**, a leaf; and aludes to the horned division of its leaves.

This is a numerous genus, containing about sixty species; not less than twenty of which have been found indigenous to some part of Great Britain. They are generally of humble growth, and many of them are particularly suitable for ornamenting artificial rock work, on account of the neatness and perpetual verdure of their foliage. Some are also employed as edgings, and constitute a pretty variety. Our present plant is not one of the least desirable for that purpose. As applicable to the same use, we may also notice the species *hypnoides*, *cæspitosa*, and *umbrosa*; the last of which is well known by the name of London Pride, and is one of the hardiest ornaments of the cottage garden.

The *Saxifraga ceratophylla* may be divided for increase, which should be effected in March or April, in preference to the autumn. It is a neat plant for pot culture, and should be kept in a rather light soil.

Hort. Kew. 2, v. 3, 70.





Ononis rotundifolia.



Saxifraga rotundifolia.



Ranunculus Asiaticus.



Lunaria bipartita.

ONO'NIS ROTUNDIFO'LIA.

ROUND-LEAVED REST-HARROW.

<i>Class.</i>	<i>Order.</i>
DIADELPHIA.	DECANDRIA.
<i>Natural Order.</i>	
LEGUMINOSÆ.	
Native of Switzerland.	Height. 15 inches.
	Flowers in May, July.
	Duration. Perennial.
	Cultivated in 1570.

No. 269.

The term Ononis, which is of Greek origin, is deduced from the words **ONOS**, an ass; and **ONEMI**, to delight; and was intended to indicate the partiality of this animal to the plant. Rotundifolia, from the Latin **rotundus**, round; and **folium**, a leaf.

This is a very pretty little deciduous shrub, which may well occupy a place in the flower garden, amongst the choicest herbaceous perennials. Its low stature will point out for it a place near a principal walk, where the more diffuse tenants of the parterre may neither injure the growth of its branches, nor conceal the beauty of its delicate flowers.

It should be planted in a fresh sandy loam; for in peat, or the worn-out soil of an old garden, we have generally observed it decline in health, after the second or third year's growth.

It ripens seeds, from which it may be raised by spring sowing, in the open ground. The plants should be kept perfectly free from weeds, and occasional protection in their first winter, may prove advantageous. Cuttings of the young shoots will strike root under a hand or bell glass, on a hotbed; in soil that is light and sandy.



SAXIFRAGA ROTUNDIFO/LIA.

ROUND-LEAVED SAXIFRAGE.

Class.	Order.
DECANDRIA.	DIGYNIA.
Natural Order.	
SAXIFRAGEÆ.	
Native of Austria.	Height. 1 foot.
	Flowers in May, June.
	Duration. Perennial.
	Cultivated in 1596.

No. 270.

The derivation of our present generic term has been lately noticed. The word rotundifolia, round-leaved, may be supposed to have no very distinct meaning, in botany, if the decision be made from the shape of the foliage in our present and preceding subjects. Though the leaves of the Ononis rotundifolia have considerable variation in their shape, and sometimes are rounder than shown in our figure of that plant, still the term may seem to be somewhat incorrectly applied, as their prevailing form is rather oval than round. Perfection in any science will be sought in vain.

This very pretty and delicate species of Saxifrage, should be present in every collection; for the beauty and delicacy of its minutely dotted flowers, will be found to excite admiration in proportion to the attention with which they are examined.

It is extremely hardy; and may be said to require but one care from the hand of its cultivator, which is, that it be planted in a shady situation. It will grow in any common garden soil, and its roots may be divided in March or September, when increase of the plant is desired.

Hort. Kew. 2, v. 3, 69.

RANUNCULUS ASIATICUS.

GARDEN RANUNCULUS.

Class.

POLYANDRIA.

Order.

POLYGYNIA.

Natural Order.

RANUNCULACEÆ.

Native of Levant.	Height. 9 inches.	Flowers in May, June.	Duration. Perennial.	Cultivated in 1596.
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No. 271.

There appears no doubt respecting the word Ranunculus having been derived from the Latin *rana*, a frog; but it is rather difficult to apply the term satisfactorily to the genus of plants which it is used to distinguish. It is said to have been used on account of many species of the Ranunculus being found natives of such moist situations as are frequented by frogs; but the difficulty increases when it is considered that our present plant is not a native of such wet situations, although *Dioscorides* used a word of similar meaning, the Greek *BATRACHION*, to distinguish it. The divided leaf, and also the roots, have been compared to a frog's foot, but neither of these can be considered very happy comparisons. *Asiaticus*, from its native country. The variety from which our drawing was taken, is known amongst florists by the name of *Nestor*.

The Ranunculus has long been held in high estimation, as one amongst that class of beauties denominated Florists' Flowers; and none, surely, can show more legitimate claim to the distinction. To point out the numberless attractions of its numerous varieties, will readily be conceived to be no easy task,

particularly when it is known that very little exertion would be required to collect more than a thousand named sorts of this flower; bringing to view under some combination or other, almost every conceivable tint of yellow, red, purple, brown, and their various compounds; with or without occasional minglings of clear white. Well may it be said that flowers are the gems of the earth, the very poetry of nature.

The Ranunculus is very generally planted in autumn, about the middle of October; and under the care of a diligent florist, who will carefully protect his beds by glass and litter; by mats, straw, or some other means, which will effectually prevent injury from frost, this early planting will always be productive of the finest flowers; and also of the strongest tubers, for the following year's use. But where these beautiful flowers, in beds or tufts, are intended to meet the elements, unheeded, spring planting is most undoubtedly to be chosen. Winter exposure will sometimes destroy very many of the choicest sorts. No precise period, in the first three months of the year, can be pointed out as more peculiarly suited for planting than another, because success so much depends on the weather, soil, and situation, which will hereafter be considered. If the situation be not extremely cold, it may be recommended that the planting be effected as early as it is possible in February; after which time severe frosts do not generally occur. If, however, sharp frosts take place, when the roots begin to vegetate, it will be indispensable that protection be given them by night; but by day the covering should be removed, to admit all possible warmth from the sun.

LINARIA BIPARTITA.

TWO-PARTED TOAD-FLAX.

<i>Class.</i> DIDYNAMIA.	<i>Order.</i> ANGIOSPERMIA.
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<i>Natural Order.</i>	
	SCROPHULARINÆ.

Native of	Height.	Flowers in	Duration.	Introduced
Barbary.	1 foot.	June, July.	Annual.	in 1815.

No. 272.

The word Linaria, owes its origin to linum, flax; and is used in consequence of the resemblance that exists between the herbage of some of the plants of the two genera. Bipartita, signifying two-parted, alludes to the two divisions, or lobes, into which the helmet, or upper part of the blossom, is divided.

This is a neat little annual plant, which may be grown without peculiar care. Its upright stems require no support; they blossom freely, and will not be found intrusive. By the produce of young side shoots, it sometimes remains in flower two or three months. The colour of the flower is variable, from a darker purple than our specimen, to almost a yellow; we have chosen the tint which, with us, it most generally assumes; in preference to that which would appear most attractive.

Seed of the Linaria bipartita, should be sown in March, or early in April; and the finest plants will be produced in a soil that is rich, and rather strong. In dry situations, seeds that are shed from the plant will vegetate in the following spring, which shows that autumnal sowing would succeed, and be productive of earlier flowers.







Geum Chiloense.



Iris Sibirica.



Pentstemon heterophyllum.



Rhododendron maximum.

GEUM CHILOENSE.

CHILE GEUM.

<i>Class.</i>	<i>Order.</i>
<i>Natural Order.</i>	<i>POLYGYNIA.</i>
<i>ICOSANDRIA.</i>	<i>ROSACEÆ.</i>

Native of Chile.	Height. 2 feet.	Flowers in June, Aug.	Duration. Perennial.	Introduced in 1826.
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No. 273.

Geum is a term which has been introduced from the ancients, and its original signification is uncertain. Some have supposed that it was instituted in allusion to the gaiety of the flowers, from the Greek **GAIO**, to be splendid; whilst others adopt **GEYO**, to taste well. The specific name, Chiloense, from Chile, its native country.

This plant was published by Lindley, in the Botanical Register, as *Geum coccineum*; and as such was delivered from the London Horticultural Society's Gardens. Sweet, in his Flower Garden, afterwards pointed it out as different from the *Geum coccineum* of previous authors, and called it *Geum quellyon*. In a late number of the Botanical Register, a variety of our present subject is figured; and the author having had an opportunity of examining the original specimen of *Geum coccineum* of the *Flora Græca*, found it to be distinct from the present subject of our gardens, which he had previously so called. He therefore withdrew the name *coccineum*, and adopted that of *Chiloense*, after Baldis and Decandolle.

Our readers should clearly understand that there is only one species of Geum, in any degree similar

to our figure, generally met with in the nurseries. We wish to be explicit on this head, in consequence of its having been supposed that two distinct species, under the names of *Geum coccineum*, and *Geum quellyon*, are in common cultivation. This opinion has been strengthened by the occurrence of considerable variation of shade in its scarlet flowers; some of which are very much darker and richer than others. This variation will very naturally happen amongst seedlings, many of which have been raised since its introduction to this country. Mr. Lindley having withdrawn his name of *coccineum*, the choice falls between *Chilense* and *Quellyon*. The former having been published by Decandolle, in his *Prodromus*, with a description, we adopt it in preference to the latter, which Mr. Sweet has founded on a local name, mentioned by Feuillee. *Chilense*, having been used by the first French botanist of his age, will be the legitimate title with our continental neighbours; and the advantage of universal identity of botanical nomenclature will be admitted by all.

This variety of names is much to be regretted, but through the increasing extension of the science, it is unavoidable. The bounty of the Creator has supplied the beauties of the earth in such abundance that man can never discover their numbers, nor comprehend their attributes.

The *Geum Chilense* is a beautifully gay plant; will flourish in any common soil; and continues in flower a very long time. It may be divided for increase; and as it produces abundance of seed, probably from these, new and interesting varieties will ultimately be raised.

IRIS SIBIRICA.

SIBERIAN IRIS; OR FLEUR-DE-LIS.

Class.
TRIANDRIA.

Order.
MONOGYNIA.

Natural Order.
IRIDEÆ.

Native of Siberia.	Height. $2\frac{1}{2}$ feet.	Flowers in May, June.	Duration. Perennial.	Introduced in 1596.
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No. 274.

The derivation of the word Iris has been lately noticed ; but as it is known by the name of Fleur-de-Lis, and for more than a thousand years, has been adopted in France, as a royal badge of honour, the origin of this term also, may not prove uninteresting at the present momentous crisis.

The heraldic sign, known as the fleur-de-lis, may, from its shape, be easily admitted to have had its origin in the Iris. Rude sculpture and painting would readily adopt the stiff and definite outline which we see it now possess. It is said to have been one of the emblems on the escutcheon of France, as early as the fifth century ; but it was rendered more particularly an object of notice in the twelfth century, by Louis VII. who adopted it as his insignia, when he joined the crusade, and led his army to the Holy Land, against the enemies of Christianity. This circumstance gave to the Iris, or at least to the figure which was supposed to represent it, the title of fleur-de-Louis, or Louis's flower. The name was soon contracted to fleur-de-luce ; and as the origin of the appellation became forgotten, it was further corrupted to fleur-de-lis, signifying flower of the Lily. Thus,

terms in common use become perverted, their signification changed; and the origin of them frequently consigned to oblivion.

The *fleur-de-lis* continued to hold a place in the arms of France; and Edward III. of England, added it to the British escutcheon as commemorative of his victories against the French monarch, Philip de Valois. Till the time of George III. this commemorative symbol was continued, when on the legislative union of England and Ireland, and the consequent revision of the British arms, the *fleur-de-lis* was discontinued as a part of the royal armorial insignia; and George IV. excluded it also from his crown.

In France, the revolution of 1792 saw it cancelled from its native banners; and wherever it occurred it was defaced by the mob. The cap of liberty, in the moments of infatuation, occupied its place; and this in its turn was hidden by the wings of the Buonapartean eagle.

With Louis XVIII. in 1814, the ancient *fleur-de-lis*, was again reinstated, as a legitimate national emblem; and continued by Charles X.: but such is the uncertainty of all sublunary objects, of kings as of subjects, that the last few weeks have seen another revolution in the dynasty of that active and intellectual people. France has declared her right to choose a new king; Charles is dethroned, and a successor to him chosen; the *fleur-de-lis* is again obliterated, and the tricoloured flag declares the power and the liberty of the people.

The *Iris Sibirica* is of upright growth, flowers freely, and flourishes in common garden soil. With due precaution it may be transplanted at any time.

PENTSTE'MON ATROPURPU'REUS.

DARK PURPLE PENTSTEMON.

<i>Class.</i>	<i>Order.</i>
DIDYNAMIA.	ANGIOSPERMIA.
	<i>Natural Order.</i>
	SCROPHULARINÆ.

Native of N. America.	Height. $2\frac{1}{2}$ feet.	Flowers in Aug. Sept.	Duration. Perennial.	Introduced in 1825.
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No. 275.

The Greek **PENTE**, five; and **STEMON**, a stamen, have been compounded as a distinguishing appellation for this genus. Atropurpureus, from the Latin *ater*, dark; and *purpura*, purple.

Several beautiful species of Pentstemon have lately been introduced from America, by the Horticultural Society, and by private individuals. They are all handsome border plants, and deserving of attention. That now before us produces seed; and young plants, raised from it, we have observed to vary greatly in the colour of their flowers, and habit of the plant.

In dry warm situations this plant will bear our severe frosts; but those who possess only a retentive soil, or moist situation, should take cuttings, about midsummer, and plant them in a shaded situation, giving occasional waterings till they have made root; which will be effected sooner, and with more certainty, if they be covered by a hand-glass. These may be kept in small pots, with a slight protection during winter, and in the spring they may be turned into the borders to flower. It has been observed that the Pentstemon seeds will not vegetate if submitted to artificial heat.

RHODODENDRON MAXIMUM.

LARGE RHODODENDRON.

<i>Class.</i>	<i>Order.</i>
DECANDRIA.	MONOGYNIA.
<i>Natural Order.</i>	
RHODORACEÆ.	

Native of N. America	Height. 15 feet.	Flowers in June, July.	Duration. Perennial.	Introduced in 1736.
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No. 276.

The name Rhododendron, is compounded of the Greek RHODON, a rose; and DENDRON, a tree; which appellation is supposed to have been first given to the Nerium. Maximum, from the Latin, signifying large, or largest.

This is a magnificent plant for the shrubbery; and in such situations as are rather moist and cool, during the summer, will, by its luxuriance and splendour, amply repay the best exertions of the cultivator. One of the principal errors in the culture of all the species of Rhododendron, is that of suffering them to be fully exposed to the heat and drought of our summers. In low moist situations, the humidity of the soil and atmosphere protects them against injury from the direct rays of the sun; but in dry shrubberies or gardens, Rhododendrons should always be protected by a shade of tall shrubs on their southern side. Northern rocks and shady woods constitute the natural habitat of the Rhododendron and Kalmia, and these should always be imitated as nearly as circumstances will admit.

Sandy peat, or not less than half peat with loam, will form a suitable soil. Increased by layers.

Hort. Kew. 2, v. 3, 50.







Verbena pulchella.



Iris variegata.



Antirrhinum norvegicum.



Calendula officinalis.

VERBENA PULCHELLA.

PRETTY VERBENA.

<i>Class.</i>				<i>Order.</i>			
DIDYNAMIA.				ANGIOSPERMIA.			
<i>Natural Order.</i>							
VERBENACEÆ.							

Native of	Height.	Flowers in	Duration.	Introduced
Buenos Ayres	15 inches.	June, Sep.	Perennial.	in 1827.

No. 277.

The word Verbena has been handed down to us from the ancients, and is generally supposed to have been applied by them to some aromatic herbs, employed in their religious ceremonies. Pliny, however, tells us, in definite terms, that it was the name of a mere tuft of grass, which was ceremoniously plucked up with the turf, from the Castle Hill, or Citadel of Rome, and used in public sacrifices; and also carried in the train of the Roman heralds, when they were dispatched on an embassy to an enemy. The officer bearing the Verbena, was called Verbenarius.—Pliny's Nat. Hist. b. 22. Pulchella, from the Latin, is translated in its English name.

This species of Verbena is a pretty addition to the parterre; and its neatly cut foliage, and divaricated habit of growth, adapt it to artificial rock work.

The most certain mode of propagating and preserving it, is to strike cuttings of its young shoots, about midsummer. These should be kept in pots, during winter, with protection from severe frost; and in spring they may be turned out, with the balls of earth perfect about their roots, and planted in the open ground, in a warm situation for flowering.

人間の心と精神

（著者）久松義重（著者）久松義重

（翻訳）久松義重（翻訳）久松義重

（校正）久松義重（校正）久松義重

（監修）久松義重（監修）久松義重

IRIS VARIEGATA
VARIEGATED IRIS, OR FLEUR-DE-LIS.

Class.
TRIANDRIA.

Order.
MONOGYNIA.

Natural Order.
IRIDEÆ.

Native of	Height.	Flowers in	Duration.	Cultivated
Hungary.	2 feet.	May, June.	Perennial.	in 1597.

No. 278.

The word Iris, which is applied by the Greeks to the rainbow, is supposed to have been derived from *EIRO*, signifying I speak, or, I tell; as some have thought, because it declared the presence of rain. Supposing the term to have been so deduced, may it not have been adopted by reason of its telling, or declaring, to us the covenant of God, as related in the ninth chapter of Genesis? Such supposition is admissible if Plato be allowed to have built his system of philosophy on the Mosaic law.

This genus contains many interesting species, and the Iris variegata may deservedly be ranked in such class. It is completely hardy, and the hue of its flowers remind us of Mrs. Charlotte Smith's spirited words in allusion to another species,—

“Amid its waving swords, in flaming gold
The Iris towers.....”

It requires no peculiar treatment, needing only to be planted in a light fresh loamy soil, in preference to one that has long been under culture. Where circumstances admit of a choice, an eastern aspect should be adopted. Division of the roots, or transplanting, should be effected in September.

ANTIRRHI'NUM MA'JUS.

GREAT SNAPDRAGON.

Class.
DIDYNAMIA.

Order.
ANGIOSPERMIA.

Natural Order.
SCROPHIULARINÆ.

Native of Britain.	Height. 18 inches.	Flowers in June, Aug.	Duration. Perennial.	Inhabits Old walls.
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No. 279.

The name *Antirrhinum*, is compounded of the two Greek words, *ANTI*, equal to; and *RIN*, a nose; expressive of the resemblance which the flowers bear to the noses of some animals. *Majus*, from the Latin, great.

The great Snapdragon, may be frequently observed, as an indigenous plant, in rich profusion and variety on old walls, and in chalky districts. Its prevailing colours are crimson, of different shades; also white or yellow, and less frequently party-coloured, as in our figure.

We have rarely seen this plant naturalized in the way it deserves. Few gardens are without a fence wall, or a house wall, on one or more sides of it. The excavation of a little mortar, from one of its joints, forms at once the Snapdragon's home; and amongst old loose masonry, it need only be planted once; its progeny will continue to inhabit there, till ejected by force.

The author of *The Journal of a Naturalist* observes that "The flowers of these plants are perfect insect traps. Multitudes of small creatures seek an entrance into the corolla through the closed lips,

which upon a slight pressure yield a passage, attracted by the sweet liquor that is found at the base of the germen; but when so admitted, there is no return, the lips are closed, and all advance to them is impeded by a dense thicket of woolly matter, which invests the mouth of the lower jaw:—

Smooth lies the road to Pluto's gloomy shade;
But 'tis a long, unconquerable pain,
To climb to the aethereal realms again.

But this Snapdragon is more merciful than most of our insect traps. The creature receives no injury when in confinement; but, having consumed the nectareous liquor, and finding no egress, breaks from its dungeon by gnawing a hole at the base of the tube, and returns to liberty and light. The extraordinary manner in which the corolla of this plant is formed, the elastic force with which the lower limb closes and fits upon the projection of the upper, manifest the obvious design of the great Architect, "whose hands bended the rainbow."

We have never observed small insects confined as here described, but have been much gratified by watching the effects of instinct in the humble-bee, and the dexterity with which these insects, apparently as large as the corolla of the Antirrhinum, will enter and pillage its nectar. They alight on the flower, open the mouth of it, and enter in a moment: hidden there a few seconds, they reappear, and as quickly enter another flower. Sometimes in lieu of entering, they tear open the bottom of the corolla at the nectary, with a violence peculiar to themselves. Their impetuosity should be witnessed, by confining one under a piece of net, or thin muslin.

CALEN'DULA PLUVIA'LIS.

SMALL CAPE MARYGOLD.

Class.

SYNGENESIA.

Order.

NECESSARIA.

Natural Order.
COMPOSITÆ.

Native of C. G. Hope.	Height. 18 inches.	Flowers in June, Aug.	Duration. Annual.	Cultivated in 1699.
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No. 280.

Calendula, it is thought, was deduced from the Latin *calenda*, whence our word calends, the first day of every month. This applies to the perpetual flowering of the plant, and is appropriate, as regards the *Calendula officinalis*, or common Marygold. The Latin *Pluvialis*, which appertains to rain, is used in reference to the influence which rain or dew has on the opening and closing of the blossoms of our present subject.

All flowers, we believe, which close in rainy and cloudy weather, have the property of closing at night. The same object, protection from moisture, is attained in each instance. This peculiarity is prettily alluded to in the following lines, which we copy from Dr. Withering's Arrangement.

“ The flower enamoured of the sun,
At his departure hangs her head and weeps,
And shrouds her sweetness up, and keeps
 Sad vigils like a cloistered nun.
Till his reviving ray appears,
 Waking her beauty as he dries her tears.”

Seed of *Calendula pluvialis* may be sown in the open ground, in April.

Hort. Kew. 2, v. 5, 167.



Malope trifida



Polygonum viviparum.



Mimulus aurantiacus



Orobas niger

MA'LOPE TRIFIDA.

TRIFID MALOPE.

<i>Class.</i>	<i>Order.</i>
MONADELPHIA.	POLYANDRIA.
<i>Natural Order.</i>	
MALVACEÆ.	

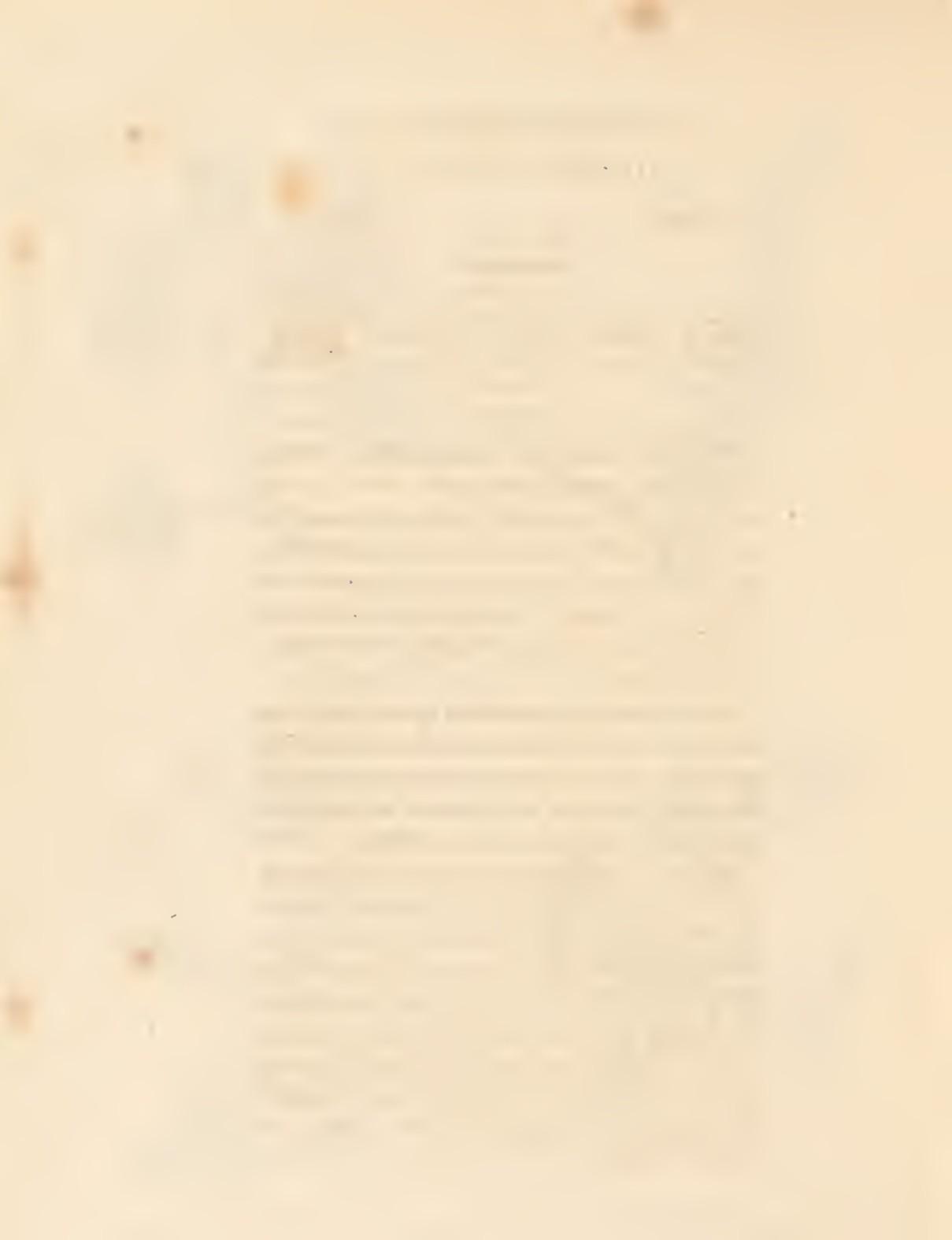
Native of Barbary.	Height. 3 feet.	Flowers in July, Oct.	Duration. Annual.	Introduced in 1808.
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No. 281.

The word Malope is believed to be a corruption of **MALAKE**, the Greek name of the mallow. Trifida, from its trifid or three-cleft leaves.

We see it, in some degree, the fate of flowers in our gardens, as of mankind in society,—one is advanced to favour, whilst another is discarded ; the introduction of one to notice, is sometimes at the expense of another's existence. Thus, an old favourite, the Lavatera trimestris, an annual which every body has claimed acquaintance with for the last hundred years, is fast declining before the Malope trifida. The Lavatera, however, has one advantage ; it has a white variety ; and this may still stand unblushingly, by the side of its rival Malope.

Seeds may be sown in the open ground, in April, and the young plants should be kept free from weeds. When they are about two inches high, they will be fit for transplanting into the situations where they are to blossom. Not more than two plants should be permitted to grow together in the mixed parterre. In beds, with the plants eighteen inches apart, this annual is seen to great advantage, and assumes a most conspicuous character.



POLY'GONUM VIVIP'ARUM.

VIVIPAROUS POLYGONUM.

Class.
OCTANDRIA.

Order.
TRIGYNIA.

Natural Order.
POLYGONEÆ.

Native of Britain.	Height. 6 inches.	Flowers in May, Sept.	Duration. Perennial.	Inhabits Alp.pastures
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No. 282.

The name *Polygonum* is compounded of the two Greek words, **POLU**, many; and **GONU**, a joint, and the appellation is well applied to some of the plants in this genus, particularly the *Polygonum aviculare*, or common knot-grass, a very common weed on sandy foot paths. *Viviparum* is a name given to this species in allusion to its little viviparous progeny of bulbs.

The peculiarity, to which the specific name has reference, is by no means common, and may possibly be an object of attraction to some non-observers who see nothing to wonder at, no subject to excite their admiration, in the usual occurrences of the vegetable world. So far as the present spread of intellectuality may open man's eyes to the wonders of creation that surround him; and render him able, not only to see the difference between his own wisdom, and that of his Creator, but also thereby to feel somewhat of the situation in which he is placed; so far, we say, as this extension of knowledge can be effected, none, even the most sceptical, will withhold his voice from the support of its continued progress amongst all classes of society.

The *Polygonum viviparum* produces a flowering stem from three to six inches high; and at the same time as its flowers become, from their small green buds, more and more developed, the growth of a distinct progeny will be proceeding below them, from the same stem. These consist of a number of brown or reddish buds or bulbs, as seen in our figure, each of them not only capable of forming a distinct plant, for perpetuating its species, but capable of that development whilst on its parent stem. Thus it is perfectly analogous to a common bud, which is put forth by the stem, and afterwards breaks into foliage; receiving its nutriment from its parent branch.

But it is also analogous to what is usually distinguished as a bulb; having all the requisite powers of vegetation within itself; for the bulbs to which we have alluded, may be removed either before or after they have vegetated, and being scattered on or beneath the soil, they continue to grow, receiving nourishment through the medium of their spongy caudex or reservoir of juices, till small fibres are produced to collect it from the earth.

This plant we have cultivated during the last ten years, but it never has produced seeds; which is probably occasioned by the exhaustion of its fluids in the maintenance of the bulbs. Possibly, if these were removed as soon as they appear, the whole nutriment of the stem being given to the flowers, seeds would be fully matured. Nature generally possesses reserved means of reproduction; and the frustration of one intention, gives action to another.

It is so easily increased by its little bulbs that it is only necessary to recommend a shady situation.

MIM'ULUS MOSCHA'TUS.

MUSK MONKEY-FLOWER.

Class.

DIDYNAMIA.

Order.

ANGIOSPERMIA.

Natural Order.

SCROPHULARINE.

Native of Columbia.	Height. 4 inches.	Flowers in June, Sept.	Duration. Perennial.	Introduced in 1826.
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No. 283.

When words are deduced from the ancients, it often becomes difficult to determine their origin. Mimulus has been thought to have been derived from nimus, a masked actor, on account of the ringent or grinning flowers, which, according to botanical description, are possessed by some species of mimulus. Or, it may be, that the seeds of the original mimulus of the Greeks, bore some resemblance to a monkey; thus the word mimo, a monkey, would form the original. Moschatus, in allusion to its musk-like scent, which is more predominant in this plant than in any vegetable production with which we are acquainted.

It is a delightful little plant, that spreads very freely; rooting as it increases; and forms complete tufts of foliage and flowers, during the summer, either in the open ground, or in pots.

It affords abundance of increase by division; and as it matures its seeds, from these also, it may be raised with ease. It is only requisite to sow them in the spring, in a pot of light compost. A hotbed would be of advantage in forwarding them; and when half an inch high, the plants should be potted, or planted out separately.

Bot. Reg. 1118.

OROBUS NIGER.

BLACK BITTER VETCH.

Class.
DIADEPHIA.

Order.
DECANDRIA.

Natural Order.
LEGUMINOSÆ.

Native of Europe.	Height. 2 feet.	Flowers in June, July.	Duration. Perennial.	Cultivated in 1596.
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No. 284.

The Greek words, *oro*, to excite; and *bous*, an ox; are compounded in the present generic name, and indicate the exciting or fattening quality of some of this family of vegetables. Niger is not used in allusion to the colour of its roots, as stated by some authors, for they are not black; but on account of the colour assumed by the herbage, when dried.

The Orobos niger, has pretty, though not showy, flowers; still as they are numerous, and the plant is of compact growth, it becomes ornamental without being intrusive; and after being once planted, asks no sort of care from the cultivator.

Its roots have a flavour similar to liquorice, but with rather less sweetness; and like those of most of the species of Leguminosæ, they are tough, firm, and descend deeply into the earth.

It produces a few seeds, and from the accidental scattering of these, seedling plants will occasionally be found near the old root. It may also be divided, but it will not flower so freely in the first season after removal. If it be desired to raise young plants from seed, they should be sown in the autumn, in a dry situation, in the open ground.



Zephyranthes Amoenus.



Yucca gloriosa.



Dianthus caryophyllus.



Gentiana asclepiadenoides.

ZEPHYRANTHES ATAMASCO.

ATAMASCO LILY.

Class.
HEXANDRIA.

Order.
MONOGYNIA.

Natural Order.
AMARYLLIDÆ.

Native of N. America	Height. 8 inches.	Flowers in June, July.	Duration. Perennial.	Cultivated in 1629.
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No. 285.

Though the term *Zephyranthes*, which appears to mean west-wind flower, originated with our countryman, Mr. Herbert, we confess ourselves unable to state how it is intended to apply to our present subject. Atamasco may be presumed to apply to its American habitat.

This plant formerly belonged to the magnificent genus *Amaryllis*, but was disunited partly on account of its always presuming to erect its head; it being required that every legitimate sister of that family should pay due homage to the goddess Flora, by nodding, or bending the head, when flowering amongst the beauties of her court.

The genus *Amaryllis* is now very extensive, so that a division of it may be considered admissible on smaller distinctions than would otherwise appear expedient. But if our more sedate readers think the preceding reasons for such division merely whimsical, we must seriously tell them that the declination, or nodding of the flowers of *Amaryllis*, is one amongst its distinguishing characters; and which they will see, by our figure, is a courtesy, very uncourteously neglected by the *Zephyranthes*.

Doctor Darwin, in his *Loves of the Plants*, distinctly notes this position of the flowers of Amaryllis. He even compares them to a weathercock.

“When heaven’s high vault condensing clouds deform,
Fair Amaryllis flies the ineumphant storm,
Seeks with unsteady step the shelter’d vale,
And turns her blushing beauties from the gale.
—So shines at eve the sun-illumined fane,
Lifts its bright cross, and waves its golden vane;
From every breeze the polish’d axle turns,
And high in air the dancing meteor burns.”

The flower of *Zephyranthes Atamasco* is extremely neat and delicate in appearance, and the plant being altogether of low statnre, it may be considered better suited to pot culture, than to the mixture, in common, with other subjects in the parterre.

It succeeds admirably when planted in sandy loam, with the addition of one fourth part of peat. A warm sheltered situation should be chosen for it, or the occasional protection of a large flower-pot, or a hand-glass, may be afforded it in a severe winter.

It is not unfrequently recommended that bulbs, which are somewhat tender, be planted eight or nine inches deep, that they may, the more certainly escape the effects of cold. We think this practice only to be the choice of two evils,—that of losing the plant, or retaining it without flowers. It is certain that most bulbs will not flower in perfection, when planted deeply in the earth; and also, that many bulbs, having a tendency, from their mode of reproduction, annually to descend, require to be taken up every second or third year, and planted at less depth, or no flowers will be produced.

YUC'CA GLORIO'SA.

GLORIOUS ADAM'S-NEEDLE.

Class.

HEXANDRIA.

Order.

MONOGYNIA.

Natural Order.

TULIPACEÆ.

Native of America.	Height. 6 feet.	Flowers in July, Aug.	Duration. Perennial.	Introduced in 1593.
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No. 286.

This noble plant has been permitted to retain its Indian name from the time of its introduction to this country, in the days of old Gerard and Queen Elizabeth, to the present time. Its needle-pointed leaves are sufficiently characteristic of its English name. The proportion of our figure of the flower is one-third, the leaf one-eighth of the natural size.

Gerard received the first plant of it which was introduced to England, and says it was brought from the Indies to him "By a seruant of a learned and skilfull Apothecarie of Excester, named Master Thomas Edwards." He says further, "It hath neither stalke, flowers, nor fruite, that I can vnderstande of others, or by experiance from the plant it selfe, which hath growen in my garden fower yeers together, and yet doth growe and prosper exceedingly." It was not till seven years after the above remarks were written, that the *Yucca gloriosa* flowered in England, which occurred in the garden of William Coys, of Stubbers, North Okington, Essex.

The first flowering of a magnificent plant like this, occurring so many years subsequently to its introduction, and to its becoming an object of attention,

could not fail, even at that period, to excite considerable interest in the circle of zealous and learned simplers to whom it was familiar; still, it must then have been a matter of very little importance to the multitude. How different would it be in the present day! Thousands would now experience the pleasurable excitement; and with all the anxious anticipation of an Isaac Walton at the rippling stream, would wait in fond hope of possessing, or even seeing the much-talked-of exotic.

Three hundred years ago, the man of education, with boorish unconcern, would press the sweets beneath his feet, regardless of their beauty, and of their origin. But in this age of knowledge, extending from the throne to the cottage, to disregard, or betray ignorance of the vegetable world, by which we are everywhere surrounded, is a censure on the mind, or pursuits, of every individual claiming the distinction of respectability in society.

In rich loam, with a dry subsoil, it will succeed in full exposure; but if kept in large pots, and sheltered in frosty weather, these plants may be disposed, during summer, with good effect about the lawn, the terrace, or open parts of the garden. As the *Yucca* grows old so its lowermost foliage decays, leaving a thick bare stalk, a foot or two above the soil. In our climate its height is extremely variable; its age before flowering also varies from five to fifteen years, and its subsequent intervals of flowering are quite uncertain.

It may be increased by suckers, which should be taken off and laid two or three days to dry, and then be planted in pots of rich loamy soil, in a hotbed.

DIANTHUS CARYOPHYLLUS.

PRINCE OF ORANGE PICOTEE.

Class.		Order.
DECANDRIA.		DIGYNIA.
Natural Order.		
CARYOPHYLLEÆ.		

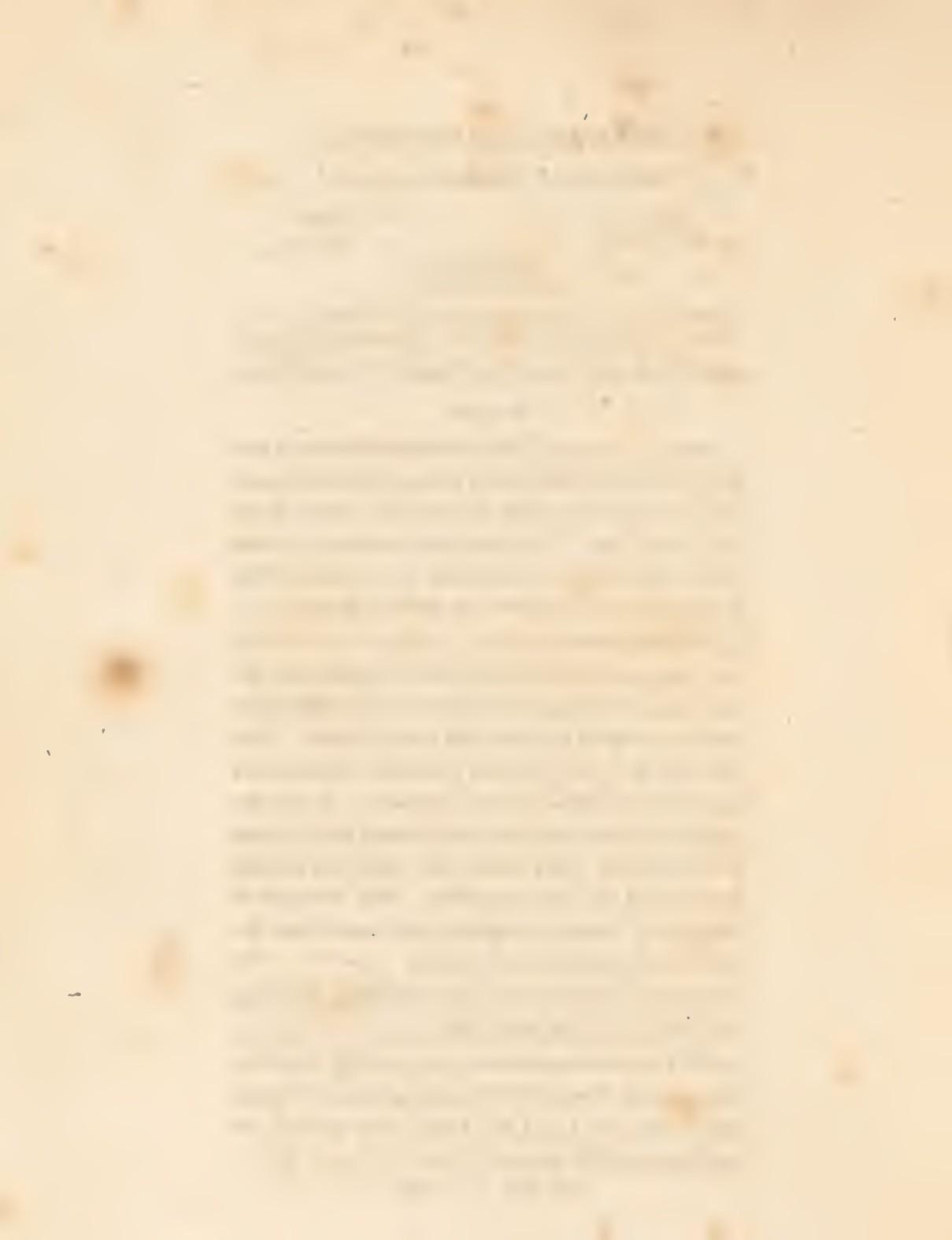
Native of England.	Height. 8 feet.	Flowers in June, Aug.	Duration. Perennial.	Inhabitats Walls.
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No. 287.

The word Dianthus, from the Greek ΔΙΟΣ, signifying Jove, or divine; and ΑΝΘΟΣ, a flower, marks the estimation in which the flowers of this genus have been held. Caryophyllus, the name of the clove, was adopted on account of the scent of the Carnation. See No. 137. Picotee, is a French term, signifying spotted.

A compost, or mixture of soils, is important in the cultivation of all florists' flowers, but that of the Carnation and Picotee less so than most others. The basis of the most desirable compost, depends on a good loam. This is obtained by taking about three inches in thickness of the top of a clear rich, reddish or rather sandy, turf, which has long been grazed. This should be laid together in a heap, from one to two years, being occasionally turned, and the decayed grass and roots well mixed.

This loam, will only require the addition of about one half, or two thirds the like quantity of well-decayed and sifted stable manure; and of drift sand, a fifth or sixth portion of the whole mixture, to constitute a compost equal to all purposes of the most anxious carnation grower.



GENTIA'NA ASCLEPIA'DEA.

SWALLOW-WORT-LEAFED GENTIAN.

Class.

PENTANDRIA.

Order.

DIGYNIA.

Natural Order.

GENTIANÆ.

Native of Austria.	Height. 1 foot.	Flowers in July, Aug.	Duration. Perennial.	Cultivated in 1629.
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No. 288.

Gentius, King of Illyria, is supposed to have discovered virtues in one of the plants of this genus, on which account his name became the origin of the word Gentiana. The term Asclepiadea, appears to have been adopted in allusion to a similarity of its foliage to that of asclepias, or swallow-wort.

The beautiful and brilliant blue coloured flowers, and the neatness of foliage, which distinguish the greater part of the plants of this genus, constitute an efficient passport for them into every garden. It is true that several species are somewhat fastidious as regards their situation and treatment. Some are natives of alpine countries, and demand purity of air. Others inhabit peaty plains, and these are equally impatient of dry tenacious soils. Well intentioned efforts, if ill directed, in floriculture, must oftentimes fail; which renders it of primary importance that the natural habit of plants be considered by every cultivator, in all his operations.

The Gentiana asclepiadea is particularly desirable, and requires less care than any species in common cultivation. In a cool and rather moist part of the garden, not wholly deprived of sun, it is sure to thrive.



